NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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OCTOBER.

"Oh who would miss it? or forget
The suns that rise, the suns that set;
The rustle of the crimsoning leaf;
The gush and murmur of the stream;
The thoughts we think, the dreams we dream;
Those south-wind days—so bright, so brief—
Where, many-hued on wood and sky;
And many-voiced to ear and eye,
October shifts the scene?"

OCTOBER, most truly, "shifts the scene," and introduces Autumn in its sterner moods. Many persons dread this season. They say that Autumn is fraught with gloom; that fruits and flowers are falling; that the winds begin to sigh through leafless branches; the fields are brown or bare; the birds are gone, and with them all the beauty and animation of Summer. A mind thus affected is certainly in a miserable mood. It cannot have been trained to a critical observation of the beautiful and wonderful things in nature which are always around us, in all places and at all seasons, nor to those habits of reflection which bring the mind into harmony with nature and revelation; habits which increase our knowledge, and which actually drive away gloom and assuage the sorrows of bereavements or other trials of life.

It is somewhat strange that but a single person has written anything like a series of papers upon the *peculiarities of the months*. Shakspeare frequently touches with a masterly hand some of them, but only in a brief and disconnected manner. In his "Mirror of the Months," a work very little known in this country, Mr. Leigh Hunt has done more. Many years ago he wrote a paper upon each month for the Edinburgh *Review*, which attracted attention at the time, and were afterwards collected and published in book form. See, now, what he says of this month of October.

"After the joyousness of summer comes the season of foreboding, for the year has reached its grand climacteric and is fast falling into the 'sere and yellow leaf.' Every day a flower drops from out the wreath that binds its brow—not to be renewed. Every hour the sun looks more and more askance upon it, and the winds, those summer flatterers, come to it less fawningly. Every breath shakes down showers of its leafy attire, leaving it gradually barer and barer, for the blasts of winter to blow through it. Every morning and evening takes away from it a portion of that light which gives beauty to its life, and

chills it more and more into that torpor which at length constitutes its temporary death. And yet October is beautiful still, no less 'for what it gives than for what it takes away;' and even for what it gives during the very act of taking away.

"The whole year cannot produce a sight fraught with more rich and harmonious beauty than that with which the woods and groves present during this month, notwithstanding, or rather in consequence, of the daily decay of their summer attire; and at no other season can any given spot of landscape be seen to so much advantage as a mere picture."

Very little is known of the value of trees by many of our people, except that some of them bear fruit, afford a pleasant shade, make fuel for the fire, or timber for building purposes. Perhaps they have never contemplated a landscape or a dwelling without a tree for ornament or shade, and much less trees as coworkers with the atmosphere in fertilizing the soil and fitting it to produce the crops by which man and beast are sustained.

Whatever affords innocent pleasure to the mind is valuable—whether it comes through the eye or ear; whether in language, music, rock, tree, or flower. The soul is expanded by a contemplative view of the starry heavens, though it may not be in possession of much exact knowledge in relation to any of the celestial bodies which are shining before it. So it may be by a view of the vast and restless sea, as the "wild, the irregular, the illimitable, and the luxuriant have their appropriate force of beauty," as well as the minute things which are by all acknowledged to be beautiful.

One of our own writers,—whose words have often adorned these columns,—in an article upon *The Fall of the Leaf*, says the "two most interesting periods to one who is in the habit of associating some agreeable sentiment with the phases of nature, occur when the trees are putting forth their tender leaves and flowers in the opening of the year, and when they are assuming the variegated hues that precede the fall of the leaf. Hence, the autumn and the spring have always been regarded as pre-eminently the two poetical seasons—the one emblemizing the period of youth, the other that of old age. But to the eye of the painter, as well as the poet, do these two seasons offer the greatest attractions. * * The beautiful tints of autumnal foliage are not correctly attributed to the action of frost. Neither are they the effect of maturity, but rather of the old age of the leaf; and they may often be discerned as early as August in those trees, which are in a declining state of health. During the second week of August I observed a maple in its full autumnal drapery of crimson. On examining it, I found that the tree had been nearly girdled. The wound had been healed, and left only a narrow strip of bark about three inches in width to sustain the whole plant. This might have been sufficient for that purpose, during a moist summer; but on account of the drought of the preceding July, it failed to supply the tree with sustenance, and a premature old age of the leaf and its accompanying tints were the consequence. A severe frost at that early date would have produced no such effect. An early frost always injures these tints by searing and embrowning the leaves which are exposed to it. This effect was clearly noticed in the autumn of 1853 when the leaves that ripened later than usual, on account of long continued rains in the latter part of summer, were overtaken by two very severe frosts, before they had begun to be tinted.

"The cause of the superior beauty of our autumnal hues, compared with those of Europe, is undoubtedly the greater intensity of the sun's rays and the greater proportion of clear weather in America, causing the leaves to arrive sooner to maturity and old age."

So the month of October, though hastening on the natural process of decay in the vegetable world, has its compensations in clear, beautiful days, in calm and starry nights, in ripening crops, in the pleasure of travelling, in the delightful open fire in frosty evenings, and in many other things and ways that are instructive and attracting.

What care we, then, for falling leaves,
Song birds flying,
Garlands dying,
Or the wind that lowly grieves?
Come, my bird, and sing to me,
Cheerily, so cheerily!
To sweet spirit,
Do not inherit,
Life to make the autumn time
Change to summer's richest prime.'

WAGES.—Soon after the Revolutionary War, Gen. Washington wrote to a friend for a Steward. Had paid $100 a year, but for the right man would go as far as $125!

FARM MATTERS IN OCTOBER.

Each month in the year has its *special*, as well as general duties. The special ones are those which can more appropriately be performed now than at any other time. October will probably afford all farmers better opportunities for doing many things than will occur during any other month of the year. It is certain that many kinds of work cannot be done while the ground is in a frozen condition.

One of these duties is that of draining lands which are unfit for cultivation in consequence of a surplus of standing water in and upon them.

The importance of drainage is better appreciated than it formerly was; indeed, many persons *believe* in it *now*, who never did before. Some progressive neighbor has placed an example before them, whose excellent results have won them over to the good work.

Few operations on the farm are scarcely less economical than attempting to cultivate land that has standing water in it. It is in a great measure labor thrown away. The soil is inactive, torpid as it were, so that it is about as capable of producing crops as the frog pond itself. Such lands will produce a certain amount of grass of an ordinary quality, and if drainage upon them is inexpedient in consequence of want of outlet, distance from home, too rocky or otherwise expensive, the best way is to let it produce what fodder it will without bestowing much labor upon it, or allow it to grow up to wood, if it will. Thorough drainage will pay a better interest on the sum expended in doing it, than United States bonds, or most other investments.

Another October duty is with regard to manure. We have often stated as our opinion that there is no mode of applying manure to the soil, which is so cheap, and at the same time so efficacious, as to apply it in its crudest condition and plough it under the surface some two to four inches. This opinion was formed from the most careful practice in the employment of manures in various forms and ways.

When ploughed under towards the close of October, it suffers no loss whatever. Whenever the soil becomes sufficiently warm to induce fermentation, the gases thrown off are at once taken up and held by the soil—storing them in fact—for future use. This operation is said also to have a mechanical effect upon the soil, similar to that of yeast in a pan of dough, raising it by separating the particles, and thus making it lighter for the roots of plants to travel in, and to admit warmth and air.

If inconvenient to plough under, manure may be taken to the field, placed in a compact heap and covered with loam. It should be placed as near the spot where it is to be used as possible. In this form and place it will be ready for early overhauling in the spring.

It is time in October to commence fattening the swine, by feeding them more liberally than they have been through the warmer months. They will gain faster now than when the weather is cold. Always furnish them with a *dry bed*, and where the wind will not reach them, especially through cracks in the floor. They will thrive better if fed upon a variety of food, and some of it should be of a succulent or juicy nature, in order to keep the system in the most healthy condition.

Do not allow the stock to feed the mowing fields too closely. The effect is hurtful to future crops. The growth of the plants is stopped by taking off the leaves continually. If the plants continue to grow until arrested by frost they take deeper root, are better able to resist winter killing, and are made permanently better.

October affords a good time to clear up under walls, to repair fences, cut bushes, to put the buildings in order by making needed repairs before November winds break down barn doors, or set shingles and clapboards flying.

Finally, the present is an excellent time to make a great deal of preparation for the work of next spring. Very much may be done now to forward business, in removing stones from fields that are to be sowed to grain and grass in the spring, and by ploughing and levelling them for that purpose. This preparation is a slow work, so that by doing much of it now, the spring work will go briskly along, and crops will be in all in good time.

These and many other things may be done in the pleasant month of *October*.

THE *Country Gentleman* says that all heavy oats that have been introduced have degenerated after a few years to the old standard.

For the New England Farmer.

THE GARDEN IN OCTOBER.

How swift the months pass! It seems but as yesterday we commenced the year with our season's plan for the garden, and here we are in the last month of Fall, and at the closing up of our out door operations, so far as vegetation is concerned. Have we made progress or improvement in garden culture over former years? Have we not gained some new ideas from our past and present seasons' experience? If so, let us make a note of it, for future reference. The past season, in many respects has been a remarkable one in New England, and so far as I am able to learn it has been unusual throughout our whole country. Storms, drought and cool weather, have prevailed to an unusual extent, in different sections, and we have been obliged to watch and tend what we have grown, with somewhat greater care than common. But where we have given extra attention we have obtained a fair reward for our labor, in good vegetables and enhanced enjoyment thereof; for it is a fact that we enjoy a thing better which costs us much trouble, than that which costs but little.

Have we tried any different or new varieties of garden products,—corn, potatoes, tomatoes, &c.? if so, what is the result? Have they proved to be an improvement, or otherwise, on old tried varieties? I have tried some different kinds of garden products, none of which I am at present well prepared to speak of, except some sweet corn Last spring I received from the proprietor some "Farmer's Club Sweet Corn," highly recommended by the New York Farmer's Club, and by men of note, which I have tried; but either from the season or some other cause, it did not come to eating size in the time—70 to 75 days—as it was claimed it would do; neither do I find it superior to Trimble's, although a very good eight rowed, fair eared corn. I distributed seed to a few lovers of good sweet corn, but as yet have had no reports. Perhaps they may have succeeded better. The corn is rather dwarf in stalk, although stout and of purple color; the foliage is striped and handsomely variegated.

There are yet some crops which must be saved before they are injured by freezing. This, with preparation for next spring's work, will constitute the principal work of the gardener from this time onward. A good and careful gardener will keep his grounds clean and neat in the fall as well as at other seasons, and he never neglects to provide for the future fertilization of his soil.

Asparagus.—Were it not that injurious insects make a lodgement in the old stems, ready to come out in spring, it would be advisable to bend them over and let them lie till spring, but as the stalks do harbor insects, it is better to cut and burn them, and cover the bed with a generous supply of coarse manure, previous to setting in of winter.

Beets should be harvested before freezing, as a little freeze injures them for the table very much. Pull, top and dry them a little, and then store them in boxes, bins or barrels, filling in some sand to prevent their wilting, and keep them in a cool cellar.

Cabbage.—Although cabbages will endure a considerable frost without injury, it is best to gather and store those for winter use before freezing hard, as this injures their keeping qualities. They should be pulled up by the roots in a dry day and turned heads down to drain and dry previous to storing. If put away in a good cool cellar, where they will not come in contact with anything to gain moisture, &c., there is little danger but that they will keep good, provided they have not been frozen and are in good order when gathered and stored.

Cold Frames.—Those needed for wintering plants for early spring planting, should be got in readiness before the weather becomes too cool, and the plants put into them.

Hot Beds.—Prepare, against time of need, plenty of good rich earth, and keep it in a convenient place for use in hotbeds in early spring.

Prune out all decaying wood, and that affected by borers, from the currant bushes; clean up and make all snug, preparatory for a long winter, and then it cannot come upon you unawares. With all this out-door preparation, and provision of food for the body, do not forget to provide food for the mind during the long winter evenings, but lay in a stock of good agricultural and horticultural papers and books for the approaching long evenings.

W. H. White.

South Windsor, Conn., 1869.

For the New England Farmer.

VALUE OF PEDIGREES.

The communication of "Z. E. J." in the New England Farmer of Sept. 11, under the head of "Standard of Merit," is evidently written with a view to lessen the importance attached to recorded pedigrees of animals, yet to my mind it contains the best argument in favor of herd-book pedigrees.

The writer refers to two herds of non-pedigree animals, to wit, the Devon herd of H. M. Hall of Burke, and the Short-horn herd of Hon. E. Cleveland & Son of Coventry, Vt. In the case of the Devon herd, he says, it was established about forty years ago.—"started from the Patterson importation, and from time to time additions have been made from other stock of *undoubted purity of blood*" Further, he says, "Mr. Hall has had on his own farm two families, using the greatest *care* to prevent deterioration, but the animals are not recorded in the herd-book."

In the case of the Short horns of Mr. Cleveland's herd, "Z. E. J." says, Mr. C., in 1858, sent a special agent to Kentucky for some

Durham heifers which were obtained at quite a high price. A bull was bought in New York, of the Vail stock, and from this beginning a herd of great excellence has been bred, and has received premiums as pure blood Short-horns."

Now, in each case above referred to, what has this writer done but give pedigrees of Hall's and Cleveland's herds,—the best that can be given without their having been recorded in the herd-book?

If there is no importance in pedigrees, why take so much pains to trace their origin? What importance is it where Mr. Hall got his Devons, or Mr. Cleveland got his Short-horns? Or what matter is it whether these men have taken great care to prevent deterioration, if excellence of animals only is to be considered?

"Is not the pains-taking by which these have been produced entitled to encouragement?" asks "Z. E. J." Most certainly it is. This very pains-taking consists greatly in knowing "what animal begot a certain other animal;" and naming and recording are the only means by which these facts can be remembered and handed down from one generation to another, or passed from one proprietor to another.

So long as Mr. Hall and Mr. Cleveland live and can remember the origin of their stock, and their several and numerous purchasers can keep the run of their animals, very well; but when they cannot, what then? Will not subsequent purchasers wish to know the origin of their animals, as Mr. H. and Mr. C. have known? It is true that "eleven years ago there was less regard paid to herd-book pedigrees" than now; for then, to a certain extent, the memory of man was sufficient. The number of pure bred animals, at that time, was small, and could be traced by their several owners as well as the herds of H. and C. can now be by themselves.

At the present time pure bred animals have bebome so numerous that there is no other way but to record; and in order that this information may be preserved and disseminated it must be printed, and this constitutes a herd-book pedigree.

I would like to ask Mr. H. and Mr. C. if they do not make a memorandum of what bull served a particular cow; and have they not had occasion to refer to their minutes? Have they not discovered that some particular animal bred better stock than some other animal, and that one animal would impart certain qualities that another animal would not? Have they not endeavored to record that fact, either in their own minds or by writing it? And what is all this but a herd-book of their own?

Herein consists the great importance of a herd-book pedigree. Had Mr. H. and Mr. C. recorded their animals in a public herd-book I should have been enabled to learn their pedigrees without waiting for "Z E. J." to communicate it through the NEW ENGLAND FARMER; a very good medium I admit, but hardly equal to the American Herd-book for the preservation of pedigrees and the convenience of reference.

Now I have recently bought thorough-bred Short-horns, in company with Messrs. Russ and Crafts; and, like Mr. Cleveland, we went to Kentucky after them and "took great pains to get pure-blooded stock," and we found that the best way to get at the most reliable history or pedigree of the several animals we bought was to go to known breeders, as I have no doubt Mr. Cleveland did, and get the best account or pedigree of the animals selected we could; and we found that, at this later day, the most reliable history or pedigree was contained in the herd-book,—consequently we bought herd-book animals; and the result is we can impart this information through the herd-book much more conveniently than by any other method.

N. B. SAFFORD.

White River Junction, Vt., Sept., 1869.

PRICES FOR THE YEAR 1870.

A Central Illinois correspondent of the *Country Gentleman*, who is occasionally more confident than correct in his predictions of future events, believes that for certain articles of food prices for 1870 threaten to be higher than they ever have been. "I refer more especially to corn, to beef and pork, and the products of both. No. 1 beef at 10c. a pound gross, on the hoof, hogs at 12 and 13c. and corn at $1, at first hands in Illinois, may seem enormous prices; and so they are. But it looks to me as if every article of these would be from 20 to 25 per cent. higher between this time and a year. The Alexanders, at Broadlands, in this county, have 5000 acres pretty fair corn, say 3,000 of good corn, and after extensive inquiry and observation, I understand they have concluded not to feed, but to sell it, since there can be no possible profit in feeding 75c. corn; and they believe they can realize that price for their corn crop at home. The causes of these high prices are not alone that a short corn crop in 1868 has been followed by a shorter one in 1869; we have built railroads and stimulated manufactures to such an extent that they are eating us up. Allow me to repeat and repeat, for the information and guidance of the farmers of the country, that while railroads stimulate and increase production, they stimulate and increase consumption to a much greater degree. Hence, though there may be exceptions now and then, the gradual and certain rise of all agricultural productions, I will say for the next ten years, is as sure as sunrise."

—Mr. Jerry Miles, of Fairfield, Vt., is the possessor of a cow that is *twenty-nine* years of age, and has given milk every season up to last winter.

FARMING IN VERMONT.

Our late journey into a portion of the western part of the State of Vermont, afforded opportunity for many conversations with thrifty and substantial farmers, as well as for observations, and comparisons of practices among farmers there with those of farmers in different portions of New England. The methods of doing similar kinds of work, do not probably vary much in any of these States. The same implements are used in all the main items of farm work; ploughs and harrows of various construction; mowing machines,—in this region nearly all of the Buckeye pattern,—tedders, horse rakes, &c. Some of the smaller implements, such as weeders of various kinds, drilling machines and seed sowers, are not yet so common as would be profitable among these people. The horse rakes we saw were not generally so strong and perfect as they should be, and especially where such large crops of hay are to be harvested. None of them seemed capable of performing the work so rapidly or so well as do several of other patterns. The small, hand rake was not observed in any field we visited, nor did there seem much need of it. The drag, or "loafer" rake, was common.

The mode of curing hay in all the region under observation, was somewhat different from that practiced in Massachusetts. It is cut by a machine soon after the dew has dried off in the morning, and left in the condition in which it falls, until ten or eleven o'clock next day; it is then raked into windrows by horse power, and "hauled," as they term it, from immediately after dinner, until evening. Most of that which we saw was nearly or quite ripe, and when taken to the barn had not that full, delicious fragrance which grass cut in the blossom and cured in the cock gives off. There were occasional fields with hay in the cock, and a few cases where hay and wheat were covered with caps.

In the town of Whiting, we visited the farm of Francis D. Douglas, Esq., and went mostly over it, but by *horse power!* It contains 375 acres, and was purchased for $15,000. About 75 acres are in forest. Most of the remainder is bounded on the east by Otter Creek, and stretching away west,—after leaving the intervale,—terminates in pleasant undulations of upland and slope that overlook much of the adjacent country. Seven or eight men, with teams, were engaged in haying, and although there were no less than *eleven* barns on the farm, some fifty to a hundred tons of hay would be stacked in the field. The proprietor estimated his crop this year at two hundred and twenty-five tons,—and a surplus left over last spring would bring up the amount at the close of the haying season to 250 tons. Besides the hay crop, he had fields of oats covering a large number of acres, and, if we recollect right, several acres of wheat. Winters 100 head of stock; raises horses, and had in the pasture one of the finest four year old colts we have recently seen. The family was making 100 pounds of butter per week, together with some cheese. The crop of oats last year, amounting to some ten or twelve hundred bushels, was sold for nearly seventy-five cents per bushel.

As we passed over the farm, various improvements were pointed out, and among them some examples in draining. Nearly all the soil in this region has a large per centage of clay, so that, fertile as it generally is, some spots are nearly barren in the midst of this fertility, or at most produce coarse and harsh water grasses. These places were noticeable in the midst of many a rich and extended field. In most cases, these spots were narrow and could be reclaimed by a single line of tile. There are several reasons why these places should be made fertile. They not only mar the beauty of the surrounding field, but there is so much waste land that may be cheaply made productive, and its loss makes a necessity for reclaiming other and perhaps more distant places.

Mr. D. spoke of the number of barns on his farm, stating that he found them there when he purchased, some four years ago. He

thought it not economical to have so many moderate sized buildings scattered over the farm.

This is the practice, however, throughout the region. A commodious carriage house, with a horse stable in the rear, is usually the first building near the dwelling house; then one or more small barns, and from four to eight or ten more scattered about according to the size and fertility of the farm.

This plan has always seemed to us a mistaken one; as lacking economy in the first outlay; as inconvenient and expensive in tending stock in the winter, separated as it is into half a dozen different parcels; expensive in keeping so many buildings in repair, especially their roofs, and as lacking the warmth for the stock which a large and compact barn would afford.

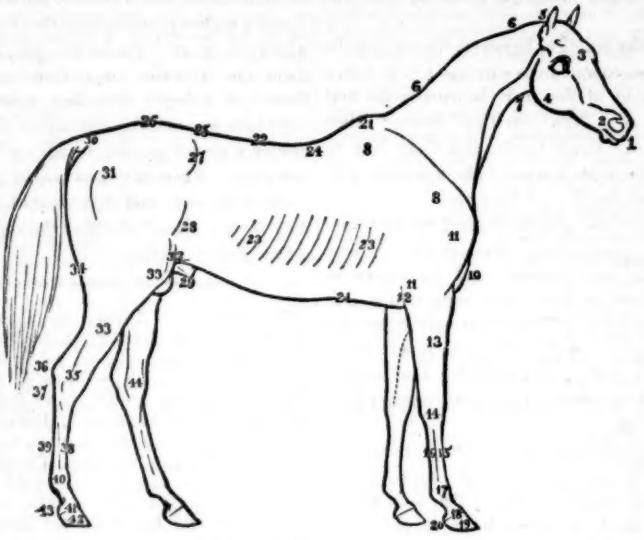
What progress would a cotton or woolen or, indeed, any other manufacturer, make under such circumstances? The true way in farming, as in all other business, is to have the work under constant observation, in the most convenient and compact form possible; the implements and machines of the farm kept where they can be seen and reached at once; the stock brought as near together as it can be, and be comfortable, in clean and well ventilated stalls; or if young and wintered in the yard, with economical places for feeding, and suitable sheds to go under in stormy weather; and the fodder as near at hand, and as easily to be got at as circumstances will allow Every thing, then, will be daily under the master's eye. He will see that the cattle are properly fed and cleaned; that they are regularly watered; that vermin do not make a descent upon them and eat them up bodily; that the young cattle have a fair chance and are not robbed of their food or hooked about by old and ugly ones. Under such circumstances, the manure will receive proper attention, and when sledding is good may be more easily taken to the fields than from dozens of frozen heaps at half a dozen barns.

From our stand point, the practice to which we advert, and now so common in Western Vermont, seems to us greatly lacking in convenience and economy, to say the least. Never having, however, managed a farm under such circumstances, we may be mistaken, and if so, shall be glad to have some friends there, show us in what respects.

In moral and intellectual qualities, it would be difficult to find a people, anywhere, occupying a higher position than the families into which we went. The newspaper, and among them the FARMER, was upon every table. Books, of a high order too, were common. and there was evidence among all of the exercise of a sound judgment and scrutinizing observation. Their soil and climate are all that could be desired; and they would be lacking in duty if they did not manifest their gratitude *in a life of good works.*

A CURE FOR BLOAT OR HOVEN.—Mr. John Hodges of Rockdale, Crawford County, Pa, communicates the following to the New York Farmers' Club:—I saw in my journal this morning that twenty cows had recently died at or near Davenport, Iowa, by being bloated from eating clover. and I hasten to inform you of an infallible cure, if applied fifteen minutes before the animal would otherwise die:—Take half a pint of salt, and cover it with water, and lay it on the animal's back over the kidneys, and have the skin thorougly impregnated with the brine, particularly where the paunch adheres to the pleura, on the left side, just back of the last long rib. I have followed the cattle business for more than twenty years, and I learned this from a brother drover. I once turned a drove of cattle into flush feed on the Susquehanna, on a rainy evening; a little after sunset a very fine young ox came to me with his tongue out as far as he could get it, breathing so that he might be be heard twenty rods or more. I sent my boy into the house for a tin cup half full of salt, covered with water. The old Dutchman said I might calculate to take his hide off in the morning. I told him I should do no such thing. He said he would die in less than one hour; that there had more than a dozen died on his farm just so, and never one cured. He was so bad I attempted to stab him, but did not and said I would wait five minutes to see if the brine would cure. In less than ten minutes his tongue was in his mouth, and he was chewing his cud before nine o'clock."

TO RELIEVE CHOKED CATTLE.—Having lost a heifer by choking with a turnip, and having had one choked since for which I found relief, I send you my remedy for publication: Get eight feet of telegraph wire, double in the middle, and twist it together so as to leave a loop in it. Take the creature by the horns and run the loop end of the wire down its throat and pull it out, and the turnip will be pushed down or pulled up in its mouth and give instant relief.—*Country Gentleman.*



POINTS OF THE HORSE.

HEAD.

1. Muzzle.
2. Nostril.
3. Forehead.
4. Jaw.
5. Poll.

NECK.

6. 6. Crest.
7. Thropple or windpipe.

FORE QUARTER.

8. 8. Shoulder-blade.
9. Point of shoulder.
10. Bosom or breast.
11. 11 True-arm.
12. Elbow.
13. Forearm (arm.)
14. Knee.
15. Cannon-bone.
16. Back sinew.
17. Fetlock or pastern-joint.
18. Coronet.
19. Hoof or foot.
20. Heel.

BODY OR MIDDLEPIECE.

21. Withers.
22. Back.
23. 23. Ribs (forming together the barrel or chest.)
24. 24. The circumference of the chest at this point, called the girth.
25. The loins.
26. The croup.
27. The hip.
28. The flank.
29. The sheath.
30. The root of the dock or tail.

THE HIND QUARTER.

31. The hip joint, round, or whirl-bone.
32. The stifle-joint.
33. 33 Lower thigh or gaskin.
34. The quarters.
35. The hock.
36. The point of the hock.
37. The curb place.
38. The cannon-bone.
39. The back sinew.
40. Pastern or fetlock-joint.
41. Coronet.
42. Foot or hoof.
43. Heel.
44. Spavin-place.

In connection with the above illustration and enumeration of the points of the horse from "The Horse in the Stable and the Field," by Stonehenge, McClure and Harvey, published by Porter & Coates, Philadelphia, we make a few extracts from the remarks of the editor on these points. We are aware that it is seldom that extracts from a carefully written essay do the author justice, as the parts omitted may be necessary to a just appreciation of that which is copied. But on the principle that "half a loaf is better than no bread," we think the following will be acceptable to all who are interested in the horse:—

The Head. — Without a wide forehead (which part marks the seat of the brain) you cannot expect a full development of those faculties known as courage, tractability, good temper, &c. The size of the muzzle is partly regarded as an element of beauty, and partly as a sign of high breeding. Hence, in the cart-horse, a coarse jaw and thick muzzle are not regarded. A large and patent nostril cannot be dispensed with in horses intended for fast work, and should be desired even in the cart-horse, for in drawing heavy loads on a hot day, his breathing may be rendered almost as laborious as that of the highly-tasked race horse or hunter. So also with the jaw, if there is not ample width between the two sides for the development and play of the larynx and windpipe, the wind is sure to be affected, and in addition, the head cannot be nicely bent on the neck. * * * The eye is to be examined with a twofold purpose, firstly, as an index of the temper, the nature of which is marked by the expression of this

organ; and secondly of its continuing healthy. A full and clear eye, with soft, gazelle-like expression, is scarcely ever associated with a bad temper, and will most frequently continue sound, if the management of the horse to which it belongs is proper in itself. The ear should be of medium size, not too small, nor too large, nor should it be lopped, though many good lop-eared horses have been known, and some very superior breeds, like that of the celebrated Melbourne, are notorious for this defect.

THE NECK should be of moderate length, all beyond a certain dimension being waste, and even a moderate-sized head at the end of an extremely long lever being too much for the muscle to support. It should come out full and muscular, with a sweep between the withers and the bosom, and should gradually diminish till it runs into the head, with an elegant bend just behind the ear. A very narrow throat suddenly bent at the upper part, marked as the thropple, is apt to be connected with roaring, and on that account is objected to by horsemen.

IN THE FORE-QUARTERS, there are several points to be attentively examined, and among these, the shoulder is regarded as of most consequence, when the horse under consideration is intended for the saddle. It is evident that, unless there is length of the blade, and also of the true arm, there cannot be a full surface for the attachment and play of the muscles, nor can there be the same amount of spring to take off the jar which follows each footfall. The straighter the angle formed by the long axis of each of these bones, the less spring there will be. So, also, if the angle is not sufficient, the muscles of the shoulder-blade will not thrust forward the true arm, nor will the latter be sufficiently clothed with muscles (without being loaded) to act on the fore-arm, commonly known by the horseman as the arm. Hence it is found, that with an upright shoulder, not only is the stride in all the paces short and the action stumpy, but there is not that elastic movement which enables the horse to carry his body along rapily and evenly, without rising alternately behind and before, and thereby jarring himself or his rider. On the other hand, the upright shoulder, loaded with a thick mass of muscles, is useful in the cart-horse, and to a certain extent also, in the carriage-horse, in both of which the pressure of the collar requires a steady and comparatively motionless surface to bear it. * * * The point of the shoulder should be well developed, but not showing any rough protuberances, which are equally objectionable with a flat or ill-developed point. The length of the true arm is mainly dependent upon that of the blade; but sometimes, when this is oblique enough, the true arm is short and upright, and the elbow stands under, or only a little behind the shoulder point. This is a very faulty conformation, and is seldom attended with good action. The chief defect in the elbow is seen when it turns inwards, and rubs so closely against the ribs that the finger can hardly be insinuated between them and it. Here the elbow is said to be tied or confined, and the horse is very apt to turn his toes out; while the opposite formation is indicated by turned-in, or "pigeon" toes, and turn-out elbows, frequently accompanying long-standing rheumatism of the shoulders. A long and muscular fore-arm is a sure accompaniment of strong and sweeping action, and should be carefully prized; in other respects there is little to be noted here. Next comes the knee, which should be broad, and when looked at from the front should be much wider than the limb above and below. It should taper off backwards to a comparatively thin edge, and should have a good development of the pisiform bone, which projects backwards at its upper part. The leg, immediately below the knee, should be as large as any ther part, and not "tied in" there, which indicates a weakness of this part. A bending of the knee backwards is called a "calf-knee," and is not objected to in cart-horses, in which it is by no means uncommon; but it is very pt to lead to strains of this joint in the race horse or hunter. A knee naturally bending somewhat forward is much proferred by good judges, though, when it is the result of over-work, it is almost equally to be avoided with the calf-knee. Flat, and at the same time large, cannon-bones, without gumminess, are of great importance, and if attended with a full-sized suspensory ligament, and with strong, clean, and free back sinews, the leg is to be considered faultless. The fetlock-joint should be of good size and clean, whilst the pasterns should form an angle with the ground, of between forty-five and sixty degrees. Lastly, the foot should be well formed; but the construction of this part being hereafter more fully described, I shall omit its consideration here.

IN THE MIDDLEPIECE the withers come first under notice. It is usual to desire them high and thin, but they are very commonly too much developed, and if the bony processes stand up like the edge of a razor, without muscle in them, they are to be regarded as objectionable rather than otherwise. * * * The volume of the chest is the measure not only of the capacity of the lungs, but of that of the large organs of digestion. Hence, unless there is a middlepiece of proper size, the wind is seldom good, and the stamina of the individual will scarcely ever be sufficient to bear hard work. * * * The capacity of the lungs is marked by the size of the chest at the girth; but the stamina will depend upon the depth of the back ribs, which should be especially attended to.

A SHORT BACK, with plenty of ground covered nevertheless, is the desideratum of every practical horseman. Unless the measurement from the shoulder point to the back of the

quarters is somewhat greater than the height at the withers, the action is confined, especially in the gallop, for the hind legs cannot be brought suffi iently forward on account of the interference of the fore-quarter; and, indeed, from the want of play in the back, they are generally too much crippled in that respect. * * * Next to these points in the middlepiece it is important to pay attention to the upper line of the back, which should bend down a little behind the withers, and then swell out very gently to the junction with the loins, which can hardly be too wide and muscular. * * *

In examining the Hind-quarters, so much depends upon the breed, and the purposes to which the animal is to be put, that only a few general remarks can be given. * * * Muscular quarters and gaskins are desirable in all breeds; for without strong propellers, no kind of work to which the horse is put can be duly performed. The judge of a horse generally likes to look at the quarters behind, so as to get a good view of their volume, and unless they come close together, and leave no hollow below the arms, he suspects that there is a want of constitution, and rejects the animal on that account. But not only are muscles of full size required, but there must be strong joints to bear the strain which these exert, and one of the most important of all the points of the horse is the hock. This should be of good size, but clean and flat, without any gumminess or thoroughpins, and with a good clean point standing clear of the rest of the joint; the "curby place" and the situation of spavin should be free from enlargement; but to detect these diseases a considerable amount of practice is required. Lastly, the hocks should be well let down, which depends upon the length of the thigh, and insures a short cannon-bone. The pasterns and feet should be formed in correspondence with those of the fore extremity, to which I have already alluded.

MAINE AGRICULTURAL COLLEGE.

This institution, which has one class of fifteen students, and has already received twenty applications for admission to the next class, was located at Orono on condition that the town would give a suitable farm, and that other friends of the institution and of the location would give the sum of $15 000 towards the buildings. Orono gave $8000 and Oldtown $3000 which went to pay for the farm. The sum of $15.000 was subscribed by the citizens of Bangor and vicinity. In making out the deed of gift of the farm, the people of Orono were shrewd enough to do it in such a way that if the location of the college should ever be changed, the land and buildings should revert to the town. Upwards of $40,000 have been expended on the farm, some $30,000 of which has come directly from the State treasury. Last winter, however, in voting an additional appropriation of $28 000, the legislature made its payment conditional on the transfer of the title to the college farm from the town to the State. This the Oronoites have refused to do at three several town meetings.

Hence the $28 000 remains in the State treasury, and, as we learn by the *Maine Farmer*, "all the work of the trustees, all plans for the enlargement and greater efficiency of the college, all building operations are completely suspended."

The editor of the *Farmer* expresses the hope that an institution to which the State has given nearly sixty thousand dollars of the people's money is not long to be paralyzed by the inconsiderate action of one town.

GOVERNMENT AND LABOR.

We presume that old Solomon is not alone in the opinion that human affairs move in cycles, and that they repeat themselves continuously. Hence what is regarded as new, is only that which hath been of old time, and that which is to be hath already been. Still it is not pleasant to apply this theory to what we regard as the progress of the race, in government and the social relations of men, and to think that our present form of government and our ideas of the equal rights of man are to be superseded by the effete land owning aristocracy that once flourished in the old world, on the one hand, and by the landless, servile, and dependent laboring class that grew up under that system, on the other hand. And yet it may be possible that there is a stronger tendency in this direction than most of us are aware of; that in fact that which hath been is soon again to be.

Already there is one paper published in the city of New York that boldly advocates the adoption of an imperial government, as a remedy for the alleged evils of our present form.

And to remedy the complaints of farmers and planters about the unreliability and high cost of help, the *Turf, Field and Farm*, of the same city, recommends the introduction of the Chinese, and says:—

Our facilities for the general diffusion of agricultural knowledge through the numerous journals devoted to that interest in every State, exceed that of any country in the world, and no nation is so well provided with machinery and implements; for such is the mechanical genius of our people that they can invent anything "to order;" and yet how poorly our agriculture compares with that of Flanders, of Scotland, or England! The fact is, the great check upon our progress in this direction is the want both in the planting and farming states of a cheap, reliable labor from a class of people *who, content, like the Asiatics, to remain in the position assigned them by Providence, have no restless aspirations to rise above it, and from day-laborers become land owners.*

These ideas of government and of the laboring classes are perfectly harmonious. They were realized under the feudal system, and the one cannot probably be revived without the other. Until an imperial government is established, we

doubt whether the immense national benefits can be secured which the editor believes will flow from the introduction of the Chinese, who, he says, are excelled by no people on the earth for frugality, docility, patent industry and aptness.

It is true that these Chinese may be content with their lot at home, where it is impossible for them to improve that lot, but how shall this "content to remain in the position assigned them by Providence" be enforced on them and on their descendants here? How shall these "restless aspirations" be kept quiet? If, as the writer of the paragraph quoted above says in another connection, "there is something in our construction that will not be content with the good that the gods provide," how are we to nip the budding ambition that may start up in these day-laborers to become land owners? To make the question still more puzzling to us, the writer says, "in truth we believe if man were made an archangel he would not lose all aspiration." Do tell us, then, how we are to banish it from the breasts of our "cheap and reliable labor," whether Asiatic or African.

The wisdom of the agricultural press of the great city of New York, which has undertaken "to win over our sluggish farm friends everywhere to a wiser economy, to a larger thrift, and to a better practice," is, we presume, competent to the solution of this as of all other problems that may occur to our "sluggish" minds.

Mowing with a Camel.—Being in the Park in New York, the other day, we saw,—what perhaps few of our readers have ever seen—a camel mowing! Here one of these humped animals was harnessed to a lawn mower, which he drew with great steadiness and apparent ease. The harness resembled a breast-plate for a horse, with the plate resting on his neck in front of the hump on his shoulders, with the shoulder strap under his body, behind his forelegs. He threw his weight into it as the ox does into the yoke. He was not a very large sized camel, but would weigh perhaps nine hundred pounds. He had mowed an acre or more, cutting the grass very smoothly. There was in the immediate vicinity a flock of beautiful Cotswold sheep under the care of an old Scotchman and two dogs; thus indicating to what use the lawn grass would be put in the coming winter. There were some two hundred of these fine sheep in the flock. There were also a herd of deer and elk in an enclosure in the Park, which with the sheep and camels have to be fed with hay in the winter.

Abortion in Cows.—A writer in the *Western Farmer* advances the theory that this difficulty, which is becoming a formidable one with dairymen in many sections, is owing to a want of phosphates in the food and water consumed by the animal. The avidity with which laying hens eat egg shells and fragments of bones, while at other times they do not eat them, and roosters never, and the fact that during gestation cows eat bones and boards, are cited in confirmation of the correctness this theory. It is also said that this information is being sold at a high price as a receipt for a cure of abortion, and that Mr. Lyman B. Sanford of Cherry Flats, N. Y., had used it with perfect success. For several years his cows had been in the habit of calving prematurely; one year fourteen out of thirty-five, miscarried between the months of January and March. Another gentleman had gathered bones and pounded them fine, and when the cows were salted, put as much bone dust as salt together, and salted once a week. He advises keeping the bone dust from the air, until used, as it will otherwise lose a portion of its phosphorus.

EFFECTS OF DEEP PLOUGHING.

If you or some of your correspondents will answer the following questions you will greatly oblige one of the constant readers of your paper. I will give the nature of the soil experimented upon, that you may be able to answer understandingly.

I have three-fourths of an acre of light, gravelly loam, that has had a coat of manure ploughed into it every spring for four years. Last season it produced a fair crop of garden vegetables.

Last fall, Horace Greeley lectured before the Bristol County Agricultural Society, and told us an acre of land with the soil a foot deep, would produce as much as as two acres where the soil was six inches deep, and an acre of soil two feet deep, would produce as much as four acres of soil six inches deep.

I asked G. G. Godfrey, Esq., a farmer of experience and skill, how I should get a deep soil, and he told me I would have to plough deep. Last October, I ploughed it from fourteen to sixteen inches deep, using a very large plough and three yokes of heavy oxen.

This spring I have ploughed in a coat of manure, ploughing seven inches deep, and planted as last year to garden vegetables.

Will the deep ploughing be a benefit or an injury to my garden? Will the six or eight inches of yellow "tree soil," or free dirt, I have ploughed up, be a benefit or an injury? Farmers here laugh at my experiment now it is done, but none of them recommend any remedy, though they all agree that it will prove a great injury.

Has any one committed the same blunder before? (if it is one.) What will be the result on this year's crop and the future usefulness of the soil? What is the best way to treat it in the future? These are questions I shall be glad to see answered.

At the end of the season will forward you the result of this year's crop, and how it compares with last season. Peter C. Thayer.

Taunton, Mass., June 25, 1869.

Remarks.—We might answer the inquiry of our correspondent, whether "deep ploughing will be a benefit or an injury to his garden in a single word; but the subject is of sufficient importance to call for some details. We plough mainly to *pulverize* the soil, in order to permit a free circulation of air and moisture, for the purpose of reducing it to powder, and to break up the joint action of pressure, and the binding effect of root fibres,

which have compressed it. An old writer and a close observer says:—

"However well you may manure your land, however thoroughly you may drain it, you will never obtain the crops it is capable of yielding, unless you pulverize it. Always bear in mind that the impalpable powder is the active part of soil, and that no other portion has any direct influence upon vegetation, and you will then, at all times, be sufficiently impressed with the necessity of thorough ploughing, harrowing, &c.; indeed, you may rest assured, that, except upon some few very light sands, you cannot pulverize the soil too much."

The question then naturally arises, what is the soil? Is it the mass of earth beneath our feet, or only some portion of it, on or near the surface? We speak of the soil, and of the subsoil, and then of the sand, gravel or clay which underlies them, and nobody mistakes our meaning. This soil varies in thickness in different localities, and may be found from one inch in depth to that of several feet. It is rock highly disintegrated, in which is mingled in greater or less degree, vegetable matter. We plough this, as before stated, to reduce its particles to dust if one can, so that when moistened their nutritive properties may be available by the roots of plants.

If we plough below the dark-colored portion of earth which we call soil, we undoubtedly bring valuable properties to the surface, but they are not in a commingled condition and state of fineness to bring a crop when planted. What follows? Why that this new earth must be brought *up gradually* to the action of the sun, air and rains, when it will, in process of time, become dark-colored, and covered with plants of one kind or another. In one spot with thistles, perhaps; in another with clover; in a third with pig weeds, and in a fourth with some of the valuable grasses; and all this without the application of manure by the hand of man. The same result may be secured more rapidly, by ploughing an inch or more deeper at each successive ploughing, adding manure freely and working the whole together by after-ploughings.

But what would be the result, if several inches of the new earth were brought up at once and mingled with the black soil? In every instance that has come under our observation, it has been the failure of the crop, unless an unusual amount of manure was employed, or the soil worked over many more times than is usual.

It is a common practice with progressive farmers to deepen the soil by *successive* ploughings, and not by turning up several inches of fresh earth at once. There are occasional exceptions to the rule, we believe, and on a garden soil that is frequently stirred through the summer so as to be well moistened, aired and warmed, a good crop may follow. The atmosphere is the great storehouse of fertilizing properties. Let the layers of the earth come in contact with it, and it will soon be covered with plants; plough these under repeatedly and a soil is prepared, which ill bring any of our common crops. Do not fail to give your results.

HOURS OF LABOR ON THE FARM.

J. W. Colburn, Esq., of Springfield, Vt., has made an estimate of the hours that hired men work on a farm during the season of eight or nine months, and during the year, which shows that farm laborers do not average so many hours of work a day as are required by manufacturers and mechanics. Judge Colburn's experience in farming give his conclusions much weight, though they may be contrary to the general idea upon this subject. He commenced his first engagement as a farm laborer three days before he was ten years of age,—working "for his victuals and clothes." He continued as a farm laborer until twenty-five years old, when he took some land on shares, but was not a land owner till 35 years of age. During the last thirty years he has employed more or less men, both by the season and the year. In a letter to the New York Farmers' Club he makes the following statement:—

Many farmers hire their help for seven or eight months, from 1st April to 1st November or December. There are three of these months that fall short in the hours of labor of the other five months. Now, let us take the five months of the longest days. A man gets up in the morning after the sun rises—it is considered out of good taste to get up before the sun; he does a few chores and waits around the house until breakfast is ready, 6 A. M.; 6:30 he will be in the field ready for a day's work; at 12 he is called to dinner, and it is 1 o'clock, P. M., before he is in the field again: and at 5 he is called to his supper, and is back to his work again at 5:30; quits work at 7 P. M. All told, 11 hours. In common seasons there is not less, counting showers, than one rainy day in a week; some seasons considerably more, and it is seldom that a farmer can furnish work in rainy weather for more

than to pay the board of his men; thus nearly two hours of each day in the week is stricken off, leaving a fraction above nine hours a day for these five months. The two or three months is one hour per day less, averaging, perhaps, 8¼ hours of constant work for the season of six or seven months.

When we take men by the year, which includes one-third Winter for the whole year, 1¾ hours less per day will be the average for these months, for we cannot expect to work men in snow, sleet, and rain, though the days are short; nor drive them out into the wood lot when the thermometer is 25 degrees below zero. This reduces the average day's work for the year to not over eight hours. If other farmers will go carefully into this reckoning they will find it a correct one, unless they have a better faculty to get work out of men in bad and wet weather than has your humble servant. In this locality the farmer does not get so many hours' work on an average the season through, or by the year, as is now established by the manufacturers and mechanics.

EXTRACTS AND REPLIES.

REMEDY FOR LICE ON CATTLE.

What can I use to destroy the vermin on my stock, that is safe? Many cattle, in my opinion, are injured by the use of kerosene, unguentum, and other powerful applications.

JESSE WILLICUTT.

Cummington, Mass., July, 1869.

REMARKS.—Our correspondent is correct in his opinion that cattle are injured by the use of the applications which he mentions. But it is the *injudicious* use. We have seen a cow's hide tanned on her body in spots where too much kerosene was used. The hair did not come off in the spring on those places when she shed the rest of her coat, and the skin felt as hard and dry as sole leather. It was two or three years before she got over the operation. There was too much applied. If a tablespoonful had been used by dipping the fingers in it and then rubbing every part of the skin, with the hand, the probability is that no harm would have been done, and the vermin destroyed. The same kind of treatment should be observed in the use of unguentum, or any of the pungent oils that are employed.

Dry, fine loam is an excellent remedy. The cattle themselves resort to it frequently by pawing it up and throwing it over themselves until the hair is filled with it. Ashes is good, but must be used with care. If sifted on too profusely and the cattle are then exposed to rain, a ley may be formed which will cause the hair to fall off.

All stalls where horses or cattle are kept, should be occasionally swept and then washed out with strong soap suds, or with water in which a bit of potash has been dissolved, or in which ashes has been soaked. The water will find its way into the crevices where the vermin "do most congregate," and kill them in their hiding places. It is of little use to dose the stock with remedies, so long as every dry crack in the floor, about the stancheons and in the walls, has a hungry legion in it ready to come out and eat your cows up while they are still alive. An ounce of prevention is worth a pound of cure. So runs the old adage, and it is a true one. Cleanliness is one of the cardinal virtues, and it ought to shine in most barns a great deal more than it does.

AMERICAN TENT CATERPILLAR.

Enclosed I send you something taken from a crab apple tree. Please tell us in the Weekly FARMER what it is, and what its future would have been had it not been removed?

TIMOTHY WHEELER.

Waterbury Centre, Vt., July 26, 1869.

REMARKS.—You have sent us a nest of *Clisiocampa's* eggs. But as that is not plain English we are very much obliged to Mr. Harris for a literal translation—the tent caterpillar. These eggs are a great curiosity. How systematically they are placed upon the limb, how firmly glued, how thoroughly protected by a warm, water-proof, elastic covering! With an ordinary magnifying glass we count some twenty-five to twenty-eight rows of eggs with twelve to sixteen in a row, sufficient for a colony of 300 to 400 worms, which would have been called into activity by the same sun which expands the buds and starts forth the leaves in the spring for their sustenance. If your trees are not large these cocoons may be removed with the fingers. Where trees are large, some gardeners use a pair of shears on the end of a long pole, worked by a cord, to clip off the twig which holds the eggs. Every batch of eggs thus removed prevents a nest of caterpillars in the spring.

Caterpillar's Eggs.

TREES AS SCREENS FOR PEAR ORCHARDS.

Every pear orchard should be screened from the full force of our sweeping winds. Otherwise a great deal of fruit will be blown from the trees in a premature state, while that which remains will never attain either the size or the beauty that it would if hanging quietly on sheltered boughs.

Those who have travelled in France and Belgium will remember the high stone walls that almost invariably surround the pear gardens, effecting the double purpose of weather screens and thief-guards. They will also recall the enormous size of the pears that grow in these quiet enclosures. Undoubtedly this is the most effectual mode of gaining complete protection.

In this country where labor and materials are now so high, it would be very costly to attempt to surround our pear trees with walls of masonry. In default of this a row of Norway spruces, or white pines, will serve us exceedingly well, and if these hardy evergreens are kept headed down to a height of about fifteen feet, they will gradually thicken up into a mass of green, which will not only conceal the tempting blushes of Flemish Beauties and Louise Bonnes, from the eyes of enamored depredators, but will also make a pleasant lee from summer gales, and at the same time allow the sun to shine in over the tops, bringing the light and heat so necessary for the perfect coloring and ripening of the fruit.

Perhaps in low lands it would be better to make our living wall of deciduous trees, thereby allowing the full force of the sun to lie on the ground

in winter and early spring, to impart warmth and dryness to the wet soil. In such situations a row of weeping ashes is very effective, and at the same time exceedingly picturesque. This may be obtained by setting out young ash trees at distances of eight to ten feet, and when they have grown to a sufficient stature, cutting them down to a uniform height of fifteen feet, and grafting the tops with scions of the weeping ash. These take readily, and in two seasons will have thrown over a shower of long, drooping boughs, reaching to the ground, giving the effect of a cataract of living green. After the first year all shoots of the original tree should be carefully removed, otherwise they will mar the beauty of the drooping wall. I have succeeded in forming such a screen with but little labor, and it promises to be perfectly effective. AUGUSTINE SHURTLEFF.

Brookline, Mass., July 25, 1869.

REMARKS.—With the protection recommended by the writer of this valuable article, we have no doubt that pears and other fine fruits might be raised on many farms in New England which are now supposed by their owners to be too far north or too elevated for their successful cultivation. Such a screen is often equal to the removal of the garden into a climate several degrees warmer and several days earlier.

THE PALMER WORM.

Will you be so kind as to inform me if there is such a worm as the Palmer worm? and if there is, please describe it to me. E. P.

Bridgewater, Mass., July 29, 1869.

REMARKS.—In 1853 an insect something like the Canker worm made its appearance in many parts of New England. In a communication to the FARMER,—Monthly page 370,—dated July 6, 1853, Prof. Harris of Cambridge, says of the Palmer worms, "these insects which have appeared in great numbers upon fruit and forest trees, during the past month, agree in all respects with the accounts given of the Palmer worms that prevailed in many parts of New England in June, 1791." As he calls them the Palmer worm, we must answer the above inquiry in the affirmative, although it is probably true that the name has been applied to different worms. Prof. Harris said that until the insect is obtained in the winged or moth state its scientific name cannot be determined. We do not know that this has been done, but we presume that Mr. Scudder's proposed work on Butterflies will give it. We have heard nothing of the Palmer worm since 1853. At that time Prof. Harris gave the following description of it: "In its early stages, this worm, or caterpillar, though varying somewhat in color, is mostly pale green, with two slender brown lines along the top of the back, and a pale brown head. It has sixteen feet, six of which, near the head, are jointed, and end with a single claw: the others are merely fleshy protuberances without joints, the terminal pair being the longest. When fully grown, the insect measures half an inch or rather more in length, and then bears a striking resemblance to the common bud-worm of the apple tree; the back assuming, generally, a darker color, and the sides of the body being marked with black points, arranged there together on each side of every ring. Two blackish semi-circular spots or marks, may also generally be observed, at this period, on the top of the first ring. A few short hairs may be seen on the body by means of a magnifying glass. On my own trees, these insects have confined themselves mostly to the terminal leaves and buds; on others, in places where they have been numerous, they have spread over all the leaves, and have devoured the whole green substance, leaving only the net work of veins untouched. They are exceedingly active in their motions, moving either forwards or backwards at pleasure, with a kind of impatient jerking motion, which renders it difficult to hold them. When the trees are shaken, these worms drop, and hang suspended by threads, like canker worms. Whether they leave the trees in the same way, when they have finished their course,—if indeed they do leave them at this time, and where they undergo their final transformations, I have not ascertained, being prevented by other engagements from watching their further progress."

DISEASED CHERRY TREES.

I have some nice cherry trees of the Washington variety, but very few cherries. They blossom full, but when the fruit gets about the size of small peas, it drops off. The trees are of about five years' growth, and appear to be very thrifty.

LYMAN J. TOWER.

Cummington, Mass., July, 1869.

REMARKS.—Our correspondent, we suppose, is aware that the cherry trees all over New England have greatly deteriorated, within the last twenty years. We are inclined to think that this is not occasioned by a disease of the tree itself, as in the case of the "yellows" in the peach, but is the result of annual attacks upon it by insects, during its early growth in the spring. These insects are a little "saw-fly," only about one-fifth of an inch in length, and quite black.

As soon as the young shoots on the ends of the twigs, put out, and new leaves are formed, these little black slimy insects infest them in astonishing numbers, and destroy all the new growth. In attempting to get them off, the hand soon becomes glued, as it were, with a disgusting, sticky substance, with which their bodies seem to be covered.

They soon affect the tree so that the foliage on the ends of the branches, all around the tree, is curled, looks dirty, and is so to the touch. They begin to lay their eggs early in June, and finish and disappear within the space of three weeks. The eggs are deposited on the under side of the leaf. The worms, or slugs, hatch out in about fourteen days, and have twenty very short legs. The trees attacked by them are forced to throw out new leaves during the heat of the summer, at the ends of the twigs and branches that still remain alive; and this unseasonable foliage, which should not have appeared until the next spring,

exhausts the vigor of the trees, and cuts off the prospect of fruit.

Sprinkling the branches with fine ashes has proved of great service in arresting the ravages of these insects.

The seeds of the plum, apple, potato, &c., will not bring the same kind of fruit that they were taken from. It is only by grafting the former, and planting the potatoes, that we get the fruit we desire.

To kill the bark louse on apple trees, scrape them, and then wash with strong soap suds.

THE BUD WORM IN APPLE TREES.

Enclosed you will find some apple tree leaves that contain a kind of maggot. Will you please to inform me through the columns of the NEW ENGLAND FARMER—which I regard as the farmer's friend—what they are called, and what will destroy them easier than to pick them off by hand? My trees are pretty well covered by them. I notice many small, slim black bugs, apparently in connection with them. JAMES POLLARD.

Ludlow, Vt., June 21, 1869.

REMARKS.—The specimens of curled and eaten leaves were duly received, with a black bug, but we could find no caterpillars. As we were not able at once to answer our correspondent's inquiries satisfactorily, we have taken some time to inquire and to hunt up the authorities on the subject. For several years we have noticed more or less of the work on our own trees of some insect in the bud and on the first leaves, but were ignorant of its name or history, nor have we been able to find any description of it in our fruit books. On consulting Mr. J. Breck and J. F. C. Hyde, of this city, we learn that this insect has never been very fully described, and until recently has not done any material damage. This year, however, it has been more numerous than ever, and it may now well claim the notice of fruit growers. The only description to which either Mr. Breck or Mr. Hyde could refer us was that in Mr. Harris' book on Insects Injurious to Vegetation. Probably Mr. Scudder will give a history of it in the volume he is now preparing on the Butterflies of New England.

Under the general term of Leaf-rollers, Mr. Harris describes two insects which prey on apple trees soon after the buds open in the spring. One "curls up and fastens together the small and tender leaves that supply them both with shelter and food; and in this way, they often do considerable damage to the trees. These caterpillars are sometimes of a pale green color, with the head and the top of the first ring brownish; and sometimes the whole body is brownish or dull flesh-red; they are rough to the touch with minute warts, each of which produces a very short hair, invisible to the naked eye. They come to their full size towards the middle of June, and then measure nearly or quite half an inch in length. After this, they line the inner surface of the curled leaves, composing their nests, with a web of silk, and are then changed to chrysalids of a dark brown color. Towards the end of June, or early in July, the chrysalis pushes itself half way out of its nest, and bursts open at the upper end, so that the moth may come out. It may be called *Loxotænia Rosaceana*, or the oblique banded moth. The fore wings of this moth are very much arched on their outer edge, and curve in the contrary direction at the tip, like a little hook or short tail. They are of a light cinnamon-brown color, crossed with little wavy darker brown lines, and with three broad oblique dark brown bands, whereof one covers the base of the wing, and is oftentimes indistinct or wanting, the second crosses the middle of the wing, and the third, which is broad on the front edge and narrow behind, is near the outer hind margin of the wing. The hind wings are ochre-yellow, with the folded part next to the body blackish. It expands one inch or a little more.

Little caterpillars of another species are sometimes found in May and June in the opening buds and among the tender leaves of the apple tree. They live singly in the buds, the leaves of which they fasten together and then devour. These caterpillars are of a pale and dull brownish color, warty and slightly downy like the foregoing kind, with the head and the top of the first ring dark, shining brown; and a dark brown spot appears through the skin on the top of the eighth ring. They generally come to their growth by the middle of June, and are changed to shining brown chrysalids within the curled leaves, in a little web of silk, wherewith their retreats are lined. The chrysalis has only one row of prickles across the rings of the back. The moths come out early in July. They very closely resemble the European *Penthina comitana*, and perhaps may be merely a variety of it. The head and thorax are dark ash-colored. The fore wings are of the same color at each end, and grayish white in the middle, mottled with dark gray; there are two small eye-like spots on each of them; one near the tip, consisting of four little black marks, placed close together in a row, on a light brown ground, the inner marks being longer than the others; the second eye-spot is near the inner hind angle, and is formed by three minute black spots, arranged in a triangle, in the middle of which there is sometimes a black dot. The hind wings are dusky brown. This moth expands from one-half to six-tenths of an inch. It may be called *Penthina oculana*, the eye-spotted Penthina. My attention was called to the depredations of this bud-moth, and of the preceding species, by John Owen, Esq., of Cambridge, by whom the moths were raised from the caterpillars, and presented to me.

It is difficult at first to conceive how such insignificant creatures can occasion so much mischief as they are found to do. This seems to arise from the number of the insects, and their mode of attack, whereby the opening foliage is checked in its growth or nipped in the bud. To pull off and crush the withered cluster of leaves containing the caterpillars or the chrysalids, is the only remedy that occurs to me. It were to be wished that some

better way of putting a stop to the ravages of the leaf-rollers and bud-moths, that infest many of our fruit-trees and flowering shrubs, could be discovered."

We are not sure which of these insects troubles our correspondent, but perhaps the foregoing description from Mr. Harris' book will enable him to decide for himself.

The little black bug alluded to had probably no connection with the worms, and may be a friend. We shall be glad to hear from any one who has observed the work of these caterpillars. We hope that, like many other insects, after having had their day they will disappear.

APPLES ON A BROKEN LIMB.

I have a fine thrifty Baldwin apple tree in my orchard on which scarcely an apple can be seen, except on a limb which was nearly broken from the tree last fall in gathering the fruit. This limb hangs full of fine large apples. How do you explain this? E. A. Davis.

Buckland, Mass., July 30, 1869.

Remarks.—We explain it on the same principle that we account for the same result when produced by taking out a ring of bark from a limb, or by bending and fastening down a branch. But exactly what that principle is it is not quite so easy for us to say. We are not deeply versed in the mysteries of fruit or vegetable growth. Our old fruit books say that by breaking or twisting the limb or removing a ring of bark, the sap which would otherwise have returned to the body of the tree or its roots, and have been mingled with the common stock of its fluids, is retained in the limb, which thus having more than its rightful share is enabled to set fruit, though the other portions do not, as the general stock of the sap is devoted to repairs or improvements in wood, &c., demanded by the exertions of the tree in maturing the previous crop, or in answer to other calls on its vitality.

BONES, AND CLAM AND OYSTER SHELLS.

I have had good success in making a fertilizer from bones according to Dr Nichols' receipt, as follows: Take 100 pounds of bones beaten in small fragments; pack them in alternate layers, with a compound made of 100 pounds of wood ashes, 25 pounds of lime and 12 pounds sal soda; pack in a tight cask and keep wet. The bones will be reduced in a few weeks, and should be thoroughly mixed with loam several weeks before using.

Now I would like to ask if clam and oyster shells can be made valuable by any such means, or by using vitriol, as it is used for bones? In what way may these shells be made available to the best advantage? How should ground oyster shells be used for manure? Do the phosphates abound in shells? P.

Franklin, Mass., July 29, 1869.

Remarks.—The above inquiry was submitted to Dr. J. R. Nichols, editor of the *Boston Journal of Chemistry*, and we take much pleasure, and perhaps a little pride, in publishing his brief but comprehensive reply. The Dr. says:—"Clam and oyster shells are composed mostly of *carbonate* of lime, and are therefore valueless as fertilizing agents. Bones are composed of *phosphate* of lime, the phosphoric acid being the agent so useful to crops. Clam and oyster shells cannot be dissolved in caustic alkalies, they dissolve in sulphuric acid, forming gypsum, or sulphate of lime.

"Clam and oyster shells are of no value to agriculture. They have no more effect upon crops than the dust or chips taken from the yard of the marble worker. Marble and shells are nearly identical in composition, and both are unworthy of consideration by farmers."

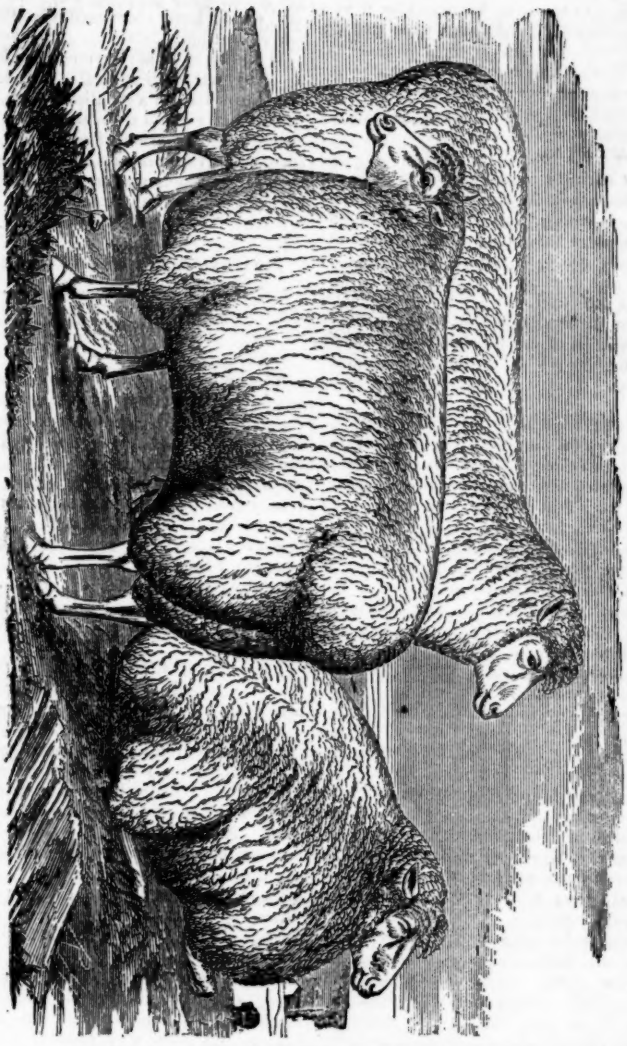
BUGGY PEAS.

Can you or any of the writers for the New England Farmer inform me how to prevent bugs injuring seed peas. I have some choice kinds that I wish to save until next year. By so doing you will oblige A Constant Reader.

East Abington, Mass., July 28, 1869.

Remarks.—Mr. Harris tells us in his book on "Insects Injurious to Vegetation," that while the pods are young and tender the pea beetle hacks into it, curculio fashion, and deposits an egg directly over the pea. From this egg a very small grub is hatched which makes its way into the pea by a passage so small as to be scarcely visible, and which closes up as the pea grows. Sometimes every pea in a pod will be found to contain a weevil-grub or worm. It changes to a "pupa" during the autumn, and by or before spring becomes a beetle, gnaws a hole through the thin hull of the pea, and is ready for another season's work. How much the flavor of green peas that we so much relish is owing to the large number of these little insects they contain, is a question that we are not asked to decide. We are asked how to prevent this worm or "bug" from injuring seed peas. Having taken up its residence in the pea, and the entrance-way being closed behind him, he is pretty securely enjoying his feast, and undisturbed, will consume most of the "marrow" of the pea, but he generally leaves the germ of the future sprout untouched. Hence "buggy peas" will mostly sprout and grow. We have heard that if peas are put into a bottle or jar, with about half an ounce of gum camphor to each gallon of peas and corked tight, the insect will be killed by suffocation. They are also scalded in hot water, sometimes just before planting, to effect the same object. As the insect is limited to a certain period in the spring for depositing its eggs, peas for seed are often sown later in the season, but in our hot summers late sown peas do not always succeed well. A gentleman in Rensselaer county, N. Y., however, sowed them on the tenth of June, six years in succession, and did not find an insect in them during that period.

—The live stock statistics of Ohio, just completed, show that in 1868 there were 20,085 more cattle, 319 more mules, 1,416,205 more sheep, and 356,625 more hogs than are returned for taxation in 1869, and a gain of 4,203 horses.



A GROUP OF IMPORTED COTSWOLD EWES.

In the Weekly FARMER of December 5, and in the Monthly FARMER for 1869, page 45, we gave a cut of sheep bred as Cotswolds by Mr. Corliss of Haverhill, Mass., who sold out in 1866. With that engraving as a type of the Cotswold breed, we were not entirely satisfied. The appearance of the head and of some other parts of the animal indicated a cross, more or less remote, with the Leicester or other similar sheep.

The cut which we give this week comes nearer to our ideal of pure Cotswolds. It represents some sheep imported from England by Mr. Burdett Loomis, of Connecticut. As is often the case with one's hands in a daguerreotype or photograph, the feet and legs,

we think, appear too large. This fault is noticeable in many cuts of animals made from photographs. Otherwise, we consider it as a good representation of the high-bred English Cotswold sheep.

For the New England Farmer.

MENTAL LAZINESS.

Your Charlotte correspondent, "Uncle John," makes some decided hits in his article "Brains in Farming, No. 2." I believe the Vermont farmers have more brains than they are willing to use. It requires an *effort* to *think;* and any continued application of the mind in one direction seems irksome to many who possess naturally strong minds They fall into the habit of vague, sleepy half-thinking, and acquire a kind of mental laziness, which militates against all subsequent mental culture.

This state of mind is induced, in part, by over physical exertion at some seasons of the year when crops need especial care, and should be carefully guarded against by all who desire to improve their minds, their farms, or their stock.

This state of feeling is indicated by the thin attendance at the farmers' clubs, the empty halls, when a lecture upon agriculture is announced, and the apparent indifference of farmers at the evening discussions at the county and State fairs. It was particularly noticeable at our State fair at Burlington, last fall. A programme for the discussions on each of the three evenings during the fair was carefully prepared, printed, and circulated months before the fair. Speakers were appointed to write essays and open the discussions, who, it was fair to suppose, would investigate the several subjects assigned to them, and be prepared to present their views in an interesting manner. A general discussion was to follow, by all who pleased to take a part. The plan was good, and should have been carried out to the letter.

But among the thousands of farmers from all parts of the State, who were present at the fair, *very* few found it convenient to attend these discussions; while the City Hall was packed to its utmost capacity to witness a second-rate theatrical performance, and the tent of a smooth-tongued "horse-tamer" was equally well filled.

The subject announced in the programme for discussion on the last evening, was "Manures," and the speaker to open it one of the Professors in our Agricultural College. A good house was confidently expected. Instead of a full house of interested farmers, eager to listen to a learned Professor, on an important subject, which he had, no doubt, thoroughly investigated, only about thirty, all told, were present. Late in the evening, it was announced that the Professor was unwell (?) and would not be in. I fancied, at the time, that a crowded hall awaiting the essay would have recovered the Professor, to our edification.

If the farmers of Vermont would be benefited by our Agricultural College, they must put themselves in a position to receive its instruction. Grants of land or money, stately buildings and learned Professors of Agriculture will avail nothing, if the farmers hold themselves aloof, and from pride, prejudice, indifference, or any other cause, neglect to receive the knowledge within their reach.

J. R. W.

Springfield, Vt., July 20, 1869.

For the New England Farmer.

LABOR.

The question of labor never occupied so much thought among all classes of men as at the present day. The most exalted and the humblest are anxiously considering its relations to themselves and others. That most of the attention it is receiving grows out of the selfish desire to reap in some way the greatest profit from it, does not admit of a doubt. At the same time, there are many that would be glad to bring out some equitable method whereby employer and employed could meet on common ground, and be mutually satisfied with what the one is paying and the other receiving.

I have small faith that such a panacea will ever be found, but expect that, as a rule, we are to jog on much as we have done for generations past; with perhaps this difference,—that as education becomes more generally diffused among the working classes, co-operative associations among them for carrying on their particular line of business will be more common. Aside from this, it seems quite evident that we must have men with means to employ those who have none; and that these parties must in some way come to terms with each other, by which the man of means may accomplish his plans, and the laborer obtain his necessaries of life.

It has been more difficult for some years past to harmonize the interests of the two classes than it was twenty years ago. Many reasons for this will present themselves to those who have been accustomed to observe passing events. Two or three of these I regard as the main sources of the whole of the trouble that has been experienced.

The first is, the great demand for labor. None can deny that the demand has been such that no man need be out of employment but a brief time, before having a call at a remunerative price for his work. This pressing demand for labor has led to most alarming effects upon the *quality* of common labor. I have been astonished at witnessing the want

of faithfulness, especially in those who are employed in any of the numerous public works in our cities. Their great study seems to be to accomplish as little as possible during work ing hours. This state of things is influencing all departments of labor. The farmer comes in for his share of the evil. His man knows he can go to the city and find *work* to do, and that *there* he can shirk his task, but while under the farmer's eye he has not so good a chance. Hence he becomes uneasy, and off he goes, regardless of all engagements, or any damage he may cause his employer. The truth of these statements, I presume, will not be controverted.

Another cause of the trouble is, the general extravagance or want of economy among all classes of our people—employer and employed. The business man, the farmer, the mechanic, and in fact all the professional classes, so called, find their expenses large, and the calls upon them for money from every side increasing. At the same time, every laboring man finds himself beset with the same difficulty. The consequence of this condition of things, is an effort on the part of those who employ labor to bring about a reduction of price; and those who labor, to gain an increase of price for their labor.

Another cause of disquietude is found in the unceasing agitation of the question, as to the number of hours that shall constitute a day. So long as labor is in such demand as it is at present and has been for some years past, so long may we be sure that this agitation will be continued. Much may be said in favor of the abridgment of labor to *eight* hours for a day's work. The same arguments may with like propriety be urged for six hours, or even less, as the legal time required. I hardly think that many who have made man's capacity for labor a study, will say that, in most occupations in the open air, ten hours is the limit beyond which he cannot labor with safety to his physical system. About the only reason of any force given for changes in this respect is, that, by reducing the hours of physical exertion, we have more time to devote to mental culture and the like. This is true. But how far this increased leisure time is thus used is somewhat problematical. However, we will not discuss the aggregate gain or loss, either to the employer or employed; for after all, it will remain true, that *necessity knows no law*. So long as human nature is as we know it to be, so long will laws enacted to regulate this matter of labor (where adults are the parties) be comparatively powerless. Demand and supply are inexorable in respect to labor, as to all other commodities. You cannot kick the beam always in one direction. It will inevitably recoil sooner or later, and swing as far from the centre in the opposite direction as it has been forced from the true balance. It is, therefore, useless and worse than useless for guilds, trades' unions and all other organizations to attempt to *dictate* who, and how many shall learn a particular business, how long they shall work, or the rate of wages they are to receive for their labor. Combinations of this kind are sure to drive employers into the same tactics, and the time for their action will be when labor can least withstand it, viz., when business is dull and labor plenty. It is well for both parties to view this question dispassionately, and with a wise regard to all the exigencies of business and of life.

So far as farm labor is involved in this question, I have never had any misgivings but that the farmer would ever be able to find labor, such as he requires, at just and equitable prices. As to the number of hours he wishes them to work, that can in all cases be amicably arranged. If you deal with every man who comes to you for work as you would wish to be dealt with, all trouble can be avoided, except in a very few cases of *very* bad men. If I tell a man before I employ him how I work my men, and if any *extra time* required is to be paid for, pro rata, or any other condition, and he engages to work knowing *all* the circumstances, you need not generally fear having any trouble with him. But hire a man in a hap-hazard manner, without his knowing what to expect, and if you get on without trouble you will be more fortunate than most men are.

Therefore, I do not think it is worth while for the farmers of New England to be much worried about the labor question. So far as they are concerned, if they deal fairly with their men at the *time of employing* them, and adhere to the conditions stipulated all through the term of service, they will find the question of labor peacefully solved, as far as they are concerned. K. O.

July 23, 1869.

For the New England Farmer.

TIME TO CUT GRASS.

Much has been said of late on this important subject, all writers agreeing that grass has usually been cut too late. This is undoubtedly true. At the same time, is there not danger of our going to the other extreme, under the pressure of so much influence on one side?

The question is, what is the proper time to cut grass, in order to secure it in its best condition?

There seems to be three stages in the growth of the grasses, as of most (perhaps all) annual plants. The first is before the juices, the sugar and starch become matured. The second is after the plant has taken up all the elements required to constitute a perfect plant, and to supply in full all the substances which go to form the nutritive qualities of the grass, with the exception, perhaps, of some of the

mineral properties required in the perfection of the seed, but while the "gum" is still held in a state of solution. The third is after these juices have commenced turning to woody fibre; the stiffening process required to give the plant strength to fill up the heavy head as its blossoms change to seed. Now the second of these stages seems to be the one in which the hay should be secured.

It is then in a condition in which the animal can best obtain the nutritive properties contained in the carbon of the plant; and, although the increase in *bulk* of the crop of hay from a given field, which has passed to the third stage, will be great, yet it is doubtful whether the increase in weight continues after the "woodening" process commences. Nearly as long as the *weight* of the *hay* is increasing, I think the quality of the grass is improving. The quality of a pound of hay cut when immature cannot be equal to a pound cut when in the next stage. We see an illustration of this in the cider apples, which, when ground green, produce an article vastly inferior to that made from ripe fruit. It is doubtful to me whether grass cut in the proper time is any better for any steaming process.

One great advantage in cutting grass early is in the quick growth of the rowen, which, if not heavy enough for cutting, protects the roots of the grass from the scorching sun, which sometimes produces such sad havoc with the roots of our redtop; the death of which is followed by a coming in of the wiry, indigestible June grass. Clover, cut early, will stay longer and do better on a field than when cut late.

But when is the *very best* time to cut grass? Has the first stage passed before blossoming? Is there any better time to cut grass, in consideration of quality, than just as it gets into full blossom?

It is rather late to discuss this question, but we can reflect through the winter, and act in summer. If a given field cut in the first of blossoming, will give as much weight of hay; if a ton of the hay will produce more strength, more meat, and more milk; if a gallon of the milk will give more butter; if the animal obtains more material to produce animal heat; if the manure left is better; if the animal saves labor in masticating and digesting the hay, which helps it to retain flesh otherwise worn off, and is healthier and better in every way, while our fields are less exhausted of the inorganic elements of fertility, and the roots better preserved from year to year—if all these advantages are to be gained by cutting at that, or at any other par icular time in its growth, rather than to cut later, it is important that the subject receives due consideration. F.

Franklin, Mass., August, 1869.

Remarks.—When agricultural writers get hold of any subject in earnest we are always afraid of the "other extreme." All farmers appreciate a deep soil, but let the writers take up that topic and before they lay it down a furrow twenty inches deep looks shallow—on paper. A wet, heavy soil is a sore annoyance to those who plough the land and hoe the crop, but the advocates of thorough drainage can find no stopping place short of pipe-laying every acre of our farms. Whenever, therefore, we get the steam up, and the machine under full headway, it is well to have the brakemen at their posts.

And why is not "after haying" an appropriate time to discuss any question connected with the subject of cutting grass? The old adage of "striking while the iron is hot," is as applicable to the thoughts of the farmer as to the iron of the blacksmith. In urging farmers to publish the results of their experience "in season and out of season," one of our correspondents added "but, perhaps, better out of season than in." Something to think of there.

For the New England Farmer.

RECREATION FOR FARMERS.

"Humph!" I hear some farmers say, "what does he mean by recreation for farmers?" I will try to tell you what I mean. At the present day it is found that all classes and conditions of men are greatly advantaged by an occasional relaxation from their daily round of duty, whatever its name or nature. None seem to be exempt from this law of our being. None can ignore it without serious loss to person and purse.

The loss to person grows out of the fact that we cannot continue one set of muscles in work, to the neglect of others, without sooner or later overworking the one and impairing or enervating the other. Persisting in this course tends to deteriorate the whole system. This is in all probability less true of farmers than of people in most other occupations. Their necessary labor brings about all their muscular system into use. The extent of the use in their case is just where the evil comes in. Unceasing toil tells upon them to such an extent as to bring on premature old age. We see them bowed over in what should be the prime of life. They lose their buoyancy and elasticity of mind; they become taciturn in their homes. A sombre sadness seems to pervade all around. The wife is too often *overworked*, and partakes of the same spirit. The children, growing up in such an atmosphere, lose interest in home,—if they ever had any interest in it,—and look forward with longing eyes to the time when they can escape to the city, the west or the sea. Too much of the emigration from our New England farms has its cause just here. I know of individual

cases in which this is true. The homes are not pleasant to them by reason of unceasing work, and the want of cheerfulness in the family.

The remedy, I think, in a measure, is to be found in farmers finding out that they can accomplish more, year by year, if they devote a portion of their time to recuperate their powers, by relaxation. A case in point occurs to me.

A cousin of my father went from Rhode Island, when about thirty years of age to Madison, N. Y. He came back to visit the old place some three or four times before he was fifty years old. After that his visits became more frequent, so that he felt before he died that he must come about every season. He told me he could spend from three to five weeks from home and *gain* double the amount of time before the year expired, in consequence of the new energy with which he could enter upon everything he had in hand. He felt happy and joyful and *wanting to sing* all the time. He was seventy-nine years old when he made his last visit. He was preparing for another the following summer, but sickened and died. He would either leave in the spring as soon as the crops were in the ground, or after his hay and small grain harvest was over.

What was true of this man is true of all others, to a greater or less extent. After a season of relaxation we bring new energy into all we have to do. Work is done with a will. More of cheerfulness accompanies it. Disappointments fail to depress as formerly. Old things have passed away. The future wears a new aspect. "We have renewed our youth as the eagle."

I am aware that most farmers will say "this is all very well; but we cannot possibly bring it around." Just here is where the trouble lies, I am ready to admit. At the same time I would urge you to seek for some way to accomplish it. Take your wife into your council, and also the children. You will find that they will enter into a solution of the difficulties with a will. Your combined wisdom will be sure to triumph in the end, because your *interest* is involved in it. When once the matter has been put to the test, no fear of it ever being dropped. Much of discontent and seeming hardship will disappear. Try it.

July 29, 1869. K. O.

For the New England Farmer.

HAY-MAKING.

Who shall decide when doctors disagree? is a question seldom answered, though often propounded. I was led to this thought on looking over a paper read by S. Edwards Todd, before the American Institute Farmers' Club in New York city, on the 14th of July.

Mr. Todd is very decided in his views as to the best mode of curing hay, and also in his ability to *satisfy all intelligent persons that he is correct.* Now I do not lay claim to a very large degree of intelligence, but I do claim the privilege of dissenting from some of his views. He tells us that hay is necessarily injured by *heating* in the mow and stack, and just as much so as grain is by heating in the bin. Mr. Todd emphatically declares that this is so; and he goes on to prove it by *assuming* that hay that is allowed to sweat and heat, must be mow-burnt, musty, dusty, and mouldy; and, as a consequence, not as good as well-cured hay. If it is *true* that mow-sweated hay is as a general thing made musty and dusty by simply heating, his position is tenable. But I think he is mistaken in this assumption.

I have repeatedly put hay in the stack and mow when it was scarcely wilted. It was cut, as I always try to have hay cut, when in full blossom. I will mention one or two instances. When a young man, my father left me in charge of haying for a few days. The day he was expected home, I had about six tons of hay cut in the morning, as it was a bright one, but without dew. Towards noon the wind came from the northeast, it clouded up, and there was every prospect of a storm. I was in a quandary, but seeing an old gentleman of the neighborhood coming up the road, I concluded to get his opinion as to what I had best do with the hay. He asked me if there was any dew on it when cut. I told him no, and said that it had been spread as fast as it was cut. Being a Quaker, he replied, "Thee better stack it then; I had rather have a pound of sap than an ounce of water." I followed his advice, but on my father's return, I found it was much to his dissatisfaction. The result was that the heat in that stack was very great, and I feared it was ruined. During the season my father often referred to it as one of my boyish freaks. Our fears, however, were happily dispelled by finding the hay all right when it was fed out. My father pronounced it the best hay he had, and from that time on, never failed to secure or put up his hay as soon as it was thoroughly dry from all moisture.

I do not know as I understand Mr. Todd when he tells us that the process of making hay consists in evaporating the moisture from the *juices* of the grass. The idea appears to be that we are to do this to the extent that we expel the juices from fruit, or at least that it is not safe to leave the *sap* in the hay at all.

I once put twenty tons of hay on a mow, by hauling it in as the teams came to the house noon and night. It was usual on unloading to find the mow quite hot, and as the hay neared the rafters, on filling up, the moisture gathered upon them and dropped down upon the hay. To obviate any damage from this dripping, I had some straw spread over the hay to receive it. This mow of hay was fed out in the spring of the year, when cows were coming in, and to the sheep with lambs.

There was no *smoke*, no *mould*, no *dust*. The stock fed on it did first rate. It was not fed to *teams*, as we thought it would be too much like grass. I presume that a great gain is to be relied upon in feeding such hay to milch cows, over the hay that is more thoroughly dried.

I am acquainted with a gentleman who has for many years put all his hay into the barn the day it is cut, and I am sure he has the sweetest and best *looking* hay of any I see elsewhere. I am satisfied that it would be economy any way for hay to be cut when *dry* and housed as soon as possible after it wilts.

A method of dealing with clover that I have practiced with much satisfaction, is to get it thoroughly dry from *water*, and stack or mow it with straw or old hay. It will come out very nice and the stock will eat the straw in some cases as well as the clover. K. O.

July 20, 1869.

For the New England Farmer.

BUCKWHEAT STRAW.

A correspondent in your issue of July 3d, asks what shall be done with buckwheat straw? This is a question worthy of consideration, as many acres are devoted to this crop, or to one very similar, that is, India wheat. In Orleans county, from reports of 718 farms, in 1867, we learn that 600 acres were in these grains, and I venture to say that one-half of the straw was thrown into a pile outside the barn door, after threshing, to rot. Such piles sometimes remain year after year, and are not applied as manure to the fields until rotted to a small bulk. There are several reasons for this method:—

1. The stalks are very juicy, like potato vines, and will heat and mould if piled away in large quantities in the barn. 2. Then the leaves all break off in threshing, so only stalks are left to save, which make the poorest fodder. 3. The farmers keep the straw separate from their manure yards, because the scattering grains will live through the winter and come up wherever the manure is applied, and in this way get mixed with every crop 4. There is a belief that for bedding it is very injurious, causing sores upon the animals that lay on it, especially hogs.

In answer to the question, What shall be done with it? I would state that in 1867 and 1868, I scattered each year two or three tons of India wheat straw upon the grass in the field, in the fall, and I know it increased the yield of grass for hay the following season. It is a good mulch, protecting the plants in winter and retaining moisture in summer. The seeds do not grow on sod; the straw is not in the way of the scythe or hand rake after being pressed by snow all winter, but a horse rake would gather some of it.

This year, as soon as haying is done, I intend to cart out all old straw, and the manure made at the stable through the summer, and spread it on the mown fields. I consider it better to let the straw rot on the fields than about the barns as it usually lays, yet I acknowledge that the better way might be to rot it in a well-built compost heap. Z. E. J.

Irasburg, Vt., July 6, 1869.

WHEN TO SKIM MILK.

When milk is allowed to sour before it is skimmed, the layer of cream appears more bulky and of greater consistency, but it does not produce so much nor so good a quality of butter as cream properly raised and skimmed from milk before it sours. On this point we possess some interesting experiments by Sannet, who put aside two equal quantities of milk, of which the first, skimmed after thirty hours, yielded thirty pounds of butter; and the second, skimmed after a lapse of sixty hours, only twenty-seven pounds of butter.

In another experiment, two equal quantities of milk yielded—the one, when skimmed after thirty hours, thirty-one pounds of butter; and the other, after sixty hours, twenty-nine pounds of butter. In both experiments, in which the milk was skimmed after thirty hours standing, the skimmed milk was still sweet, and the cream not so thick and less in bulk than that which was thrown up after sixty hours standing.

The cream which rises first is always richer in butter than that which is thrown up later, and it also possesses more of that peculiar aroma which gives to butter that rich, nutty flavor and smell which imparts so high a degree of pleasure in eating it. When proper regard has been had to keeping the milk at the right temperature while the cream is rising, and the proper appliances are had in the dairy, all the cream that will rise at all will have to come to the surface in about twenty-four hours. Some claim that they can get it all up in less time. Of one thing we may be assured—the quicker cream can be made to rise the better its quality; for cream, like all perishable substances, does not preserve its original properties for any great length of time.

The best as well as the highest priced butter that now goes into the London market comes from the continent of Europe, where the greatest attention is paid to butter making. In Holstein, one of the points considered most essential in butter making is to skim the milk just at the proper moment; and this must always take place before the milk can become sour. Choice, keepable butter can only result when the milk has been kept sweet, as the souring develops curds. The Orange county butter makers observe this principle; and the experience of the best butter makers, both in this country and in Europe, appears to have settled down upon this principle as the correct one to practice. But while the cream should

be taken from the milk before it is sour, the cream, on the contrary, is allowed to have a pleasant acid taste before churning.

It appears to be the general opinion of butter makers, both in this country and in Europe, that better results are obtained by allowing the cream to acquire a *slightly* acid taste than to churn it sweet; but this acid condition of the cream must not be confounded, however, with sourness, which is altogether different, and arises from different causes, such as standing too long, or from a close atmosphere, or from badly cleansed utensils, or from a general want of care and cleanliness.—*X. A. Willard, in Rural New Yorker.*

WHY WE GROW HEAVY WOOL.

Wool growers are very generally blamed for making heavy fleeces. The burden of the song of speculators and commission men, is "heavy fleeces," "too much grease,"—and the refrain is accompanied by the one-stringed instrument that is played upon by all Wool Buyers' Associations. The well-posted wool-grower has never attempted to conceal the fact that he makes his wool heavy because it pays him best to do so. That this is so is no fault of his. Incompetent men are sent out through the country to buy wool at an arbitrary price. They can't pay above such a price; but will take anything that is offered below or within their limit. Isn't here a premium upon heavy wool?

But suppose the grower concludes not to sell to this man, but ships his clip to Chicago, hoping to have it sold upon its merits, how does he fare? I have before me the circular of one of the largest commission houses in Chicago, (dated July 6,) in which I find these figures:—

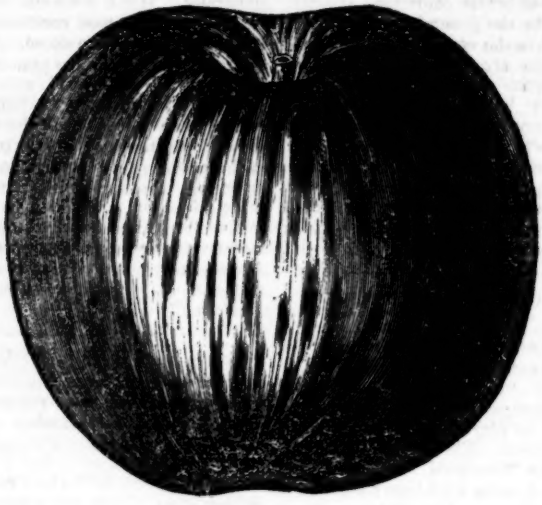
Fleece XX, good condition, light	40@43c
Fleece XX, bad condition, heavy	38@40c
Fleece X, good condition, light	40@42c
Fleece X, bad condition, heavy	36@37c
Fleece medium, good condition, light	40@43c
Fleece medium, bad condition, heavy	36@38c

Here we find *two* cents per pound difference in price between "good condition, light," and "bad condition, heavy." Now, a well grown Merino fleece of four pounds weight, would be in good condition; and one of five pounds would not be *very* heavy. But take the two for an example. I send to the commission house my four pound fleece, in "good condition, light"--sheared as soon after washing as dry, and it is sold for 40a43c—say 41¢. My neighbor allows his sheep to run two weeks after washing; then shears, and sends to the same house his five pound fleece, in "bad condition, heavy." Good condition means something more than *light*. It is free from tags, and surplus strings, and is every way sightly. Bad condition, of course, is the reverse of this. My neighbor's wool is sold for 38a40—say 39c per pound—I get for my light fleece $1.66, while he gets for his heavy fleece $1.95; in fact 29c per fleece premium for making his wool heavy, and in bad condition generally. Wool growers will put up their wools light, and good conditioned, when it is made their interest to do so. If two cents or two and a half cents per pound is all the value light, good conditioned wool has over bad conditioned heavy, to the manufacturer, he must content himself with the heavy—for the grower can't afford a loss of 25c to 30c on each fleece, just to tickle the pocket of his customer. Such liberality is not found in any other class of producers, and need not be looked for among wool growers, until manufacturers are ready to furnish a No. 1 doeskin at the same price per yard as an ordinary satinet.—*A. M. Garland, Chatham, Ill., in Western Rural.*

INSECT LIFE.—All the higher animals, such as mammals or what are commonly called "quadrupeds," birds, reptiles and fishes, breed an indefinite number of times in the course of their lives. For example, nobody expects that, because a heifer has raised one calf, she is going to die as a matter of course; neither does a hen necessarily die, because she has already reared one brood of chickens. But with insects the case is quite different. Every female insect, with the single exception of a few social species, such as honey-bees and perhaps ants and white ants (*Termites*) perish in the course of the same season, after laying their first and only batch of eggs. Their race is then run—the goal is then reached—and they retire from the course, to give place to that new generation of the same species, which, although it proceeds from their loins, they are yet in the great majority of cases destined never to behold.—*American Entomologist.*

GRASS FOR BREEDING HOGS.—A writer in the *Western Rural* says:—"A good supply of grass for breeders is of untold value. They should be put on pasture two or three weeks before breeding time, as it increases the milk greatly. Breeders, on a good supply of grass, with some corn, will not only retain their flesh, but grow continually, and be easily fattened in the fall or winter, while the pigs will be large and healthy, and their growth will not be checked during the winter. If breeders, with their pigs, are confined in small yards during the summer, and fed on grain alone, it will take two of the former to make a shadow in the fall, while the latter will be small and poor, and go into winter quarters good subjects for disease."

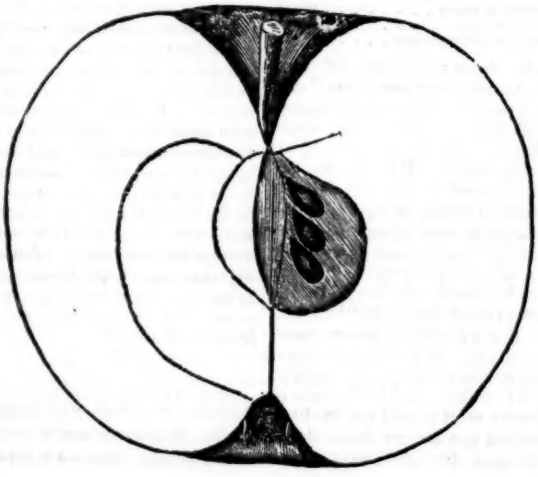
—One swallow does not make a summer, and the result of a single trial should not be taken as a rule. Writers for agricultural papers, and farmers generally, have much need to remember this.



THE CLARK APPLE.

As our market is frequently largely supplied with western apples, many of which are grown in the central and western counties of New York, we have thought that some of our readers might like to see an illustration and description of one of the local fruits of that section. We therefore copy from the *Rural New Yorker* the annexed cuts of a seedling apple from Ontario County. It originated on the farm of J. W. Clark, Esq., of the town of Naples, N. Y.

It is described as a strong, vigorous grower, forming a broad, open, spreading top. Young wood dark red brown, quite downy or moldy. Leaf thick, broad, roundish, slightly oval, pointed, coarsely serrated. Fruit medium, or above, in size, globular, slightly oblate in some specimens. Color a rich pale yellow ground,



mostly overspread, striped and splashed with two shades of rich, deep, clear red; the red deepest at the stem end. Scattering, irregular shaped light russet dots and traces, with an occasional raised russet patch. Stem medium in length and size. Cavity open, deep, acute, with five or more lines, giving almost appearance as if furrowed. Calyx small, closed with erect, reflexed, narrow pointed segments. Basin narrow, open, abrupt, slightly furrowed. Flesh yellowish white, coarse-grained, breaking, partially crisp, moderately juicy. Flavor pleasant, mild sub acid. Core medium.

LETTER FROM MR. BROWN.

CORNWALL, VT., Aug. 16, 1869.

The Green Mountains.—Lake Champlain.—Progress in art and civilization.—Influence of machinery on the farm.—Grass crop in Addison county.—A Hay-loader.—How constructed, and how it operates.—A new mowing machine and horse pitchfork.

GENTLEMEN:—I have been spending several days in this fertile and delightful region, between the Green Mountain range on the east, and Lake Champlain and the frowning Adirondacks on the west. I have crossed the lake several times, visiting the busy villages that nestle under the gloomy mountains, on the New York side, and have passed through a long tier of towns which lie on the flat lands east of the lake and stretch away up the sides of Snake and other mountains, that are separate and independent of the Green Mountain range. * * * * *

I came to mingle once more with the farmers of Addison county; to notice their progress in the great art of agriculture; to see details as well as results; to look at their standing crops; what changes have been introduced in their style of buildings, especially their barns, and in the implements and machines which they employ in cultivating and securing their crops. I think all the changes which I observed are for the better; they are clear evidences of a higher civilization; of an intellectual advancement and greater refinement. A true or refined taste in the arts, in the style of our public buildings, school houses and churches, in our dwellings, and in the buildings which surround them, leads to an intellectual refinement which, sooner or later, will change the whole character and condition of a people. Five years ago I visited quite freely among these farmers. Within that time many new dwellings have been erected, and yet among all that I saw there is very little resemblance between those that were built only twenty years ago, and those erected within five years. The outbuildings share in the same progress. The barns are better, and the dairy-rooms have been completely transformed. This progress not only saves money, but it saves health and temper, which are of still more value. It elevates not the individual only, but the whole mass. Children grow up under it with more refinement of feeling and manner; with less disposition for litigation, and with a grace and ease that gives to social life one of its chief charms.

In this direction, the influence from the use of machinery on the farm is altogether underrated. On every farm I have visited there has been one mowing machine, and in several instances two. To this is always added a horse rake and occasionally a tedder. If a man delves with his hands from day to day, in addition to the mental labor required to superintend his affairs, he must sooner or later yield to the strain upon his powers. It will affect his temperament as well as his health, until his whole nature seems to have changed. It is no longer a bright and cheerful world to him, and moral, intellectual and physical progress are out of the question, in that degree in which they ought to proceed. What cotton and cotton manufactories have done for the civilization of the world, farm implements and machinery are still doing. Both are civilizers.

It is a world of grass in all this region. I have witnessed nothing like it before. The crop in Addison county is larger than it has been in any former season. The lands are clay and admirably adapted to this crop. I have visited fields that were *never ploughed*, have been mowed more than fifty years in succession, and never manured where they were taking off, before my eyes, from a ton and a half to two tons to the acre of excellent timothy and red top hay! Scarcely one of the farmers whom I have visited will cut less than seventy-five tons of hay, and from that all the way up to two hundred tons. In one instance where some old hay was left, the proprietor stated that when all his grass was cut he should have fully two hundred and fifty tons in all.

Before the introduction of the machinery now in use, the labor of haying required the

aid of an army of Frenchmen from Canada to assist in securing it. Nearly every family had half a dozen or more, and the effect upon the subsistence department of the region was something like that of the descent of the untold millions of grasshoppers upon it in 1860. They swept everything eatable before them, and the Frenchmen do pretty much the same.

By the aid of labor-saving machines this army is reduced to about one-tenth of its former number, and has altered the condition of the work in-doors essentially, as well as out.

To the valuable machines which I have named, there has recently been added another which I have taken especial pains to see in operation; it is for loading the hay by horse-power, after it is sufficiently dry and thrown into winrow. I have seen it in use at three different times, and on uneven as well as even ground, and everywhere it did the work quickly and well. At one of my visits to see it, the first load was put on in *eight* minutes, the second in *seven and a half minutes* and the third in *seven minutes*. This was done by the steady, usual working of the machine, and without any effort to do the work in a short time. The bystanders estimated the loads at 1500 pounds each; the wagon, being a short one, would not conveniently take any more. The men using it stated that on a previous occasion they loaded and unloaded *eighteen loads* in *six and a half hours*, all the loads but the last one being placed upon stacks in the field.

The loader is attached to the hind end of the wagon; stands perpendicularly; is eight feet long and four feet wide. It has eight sole leather belts, each two inches wide, which pass over rollers at the top and a cylinder at the bottom. There are fifteen small iron spurs in each of these belts, which pick up the hay as the team, straddling the winrow, passes along, carrying it up and rolling it over upon the wagon. The whole of this weighs but 175 pounds. It can be attached or removed in less than five minutes, and can be applied to any wagon. It makes no noise while being operated, adapts itself to uneven surfaces, and is exceedingly simple in every part of its construction.

I had always imagined the hay loaders that I had read about as being heavy and cumbersome contrivances, hanging on to one side of the wagon, and requiring some human power to feed an endless apron that was to carry the hay along to the cart. When I saw this small and light contrivance, noiselessly picking up the hay and conveying it to the wagon, I came to the conclusion that a device had been reached which would complete the circle of machines to be used in securing the most important of all our crops—the hay harvest.

This machine was invented, and has been mainly built by Mr. Nelson B. Douglas, of Cornwall, Vt. He had it in operation last year, and has had it in continual use the present season, in order to make such alterations—if needed—as would bring it as near perfection as possible. Only about a dozen have been built, and those in use are in the hands of farmers who are testing their merits. None have been offered for sale. In the West, and wherever a large amount of hay is to be secured, this machine must take rank with the mower, horse rake, tedder and horse pitchfork.

There is a very singular looking mowing machine in this region invented and built by a Mr. Newell, of Shoreham. It has fewer pieces than any other which I have seen It has but two geared wheels, I think, each about eight inches in diameter. These are enclosed in a cast iron cone, and just far enough apart to meet gears attached to the shaft which gives motion to the knives. I saw it in operation, but not enough to form an opinion of its merits.

Another article which I desired to see in operation, was the *Shear Pitchfork;* but did not find one among the farmers whom I was visiting. It was spoken of highly.

My notes are not exhausted, but the length of my letter suggests that I had better defer speaking of some other items of Vermont farming until another time. So I am, very truly, yours, Simon Brown.

Messrs. R. P. Eaton & Co., Boston.

Building Hay-mows.—The *Ohio Farmer* says that where hay-forks are not used, much hard labor may be saved, and other advantages gained, by building up either the right or left end of the hay-mow first. One half of the mow being higher than the other, the top of the load may be thrown on the highest part and the balance on the lower. Being carried up separately, there will be a seam between the two parts by which the heat, always the greatest in the centre of the mow, will escape, and then in feeding out there will be no need of using the hay-knife to make a division of the mow.

WHAT IS A GOOD COW.

A writer in a recent number of the *Galaxy* gives the following general hints regarding the selection of a good cow for milk producing:

First. Health, good constitution or digestive apparatus, for which we require a capacious belly. Second. That the largest possible development of the animal shall be behind, in the udder and parts adjacent. A good cow is likely to be wedge shaped, of which the head is the smaller end. Big heads, or horns, or shoulders are not desired, because they have to be nourished by the food. But these are indispensable: a large bag, and hind-quarters to support and minister to it. What do our milkmen look for in selecting milk giving cows? The first appearance, to a judge, will convey an impression as to the health of constitution of the cow. He will ask, also, a bony frame, one that does not steal the fat from the milk; and he will feel the skin, to find it flexible and covered with close softish hair; he will ask for good lung room, a capacious belly, a wide rump and well developed bag, covered with soft hair. Extending from this bag forward, he will be desirous to see prominent the two great veins which lose themselves in the belly; and on the back of the udder he will look for many well-defined branching veins. Then comes Guenon's "milk-mirror," which is a broad strip of hair running up from the udder to the vulva, which he considered the one thing needful; but which has not, in this country, been found an infallible test, though it is a good one. If, in addition, the cow is gentle, good tempered, you are almost sure of a milk-maker. Look for that kind.

—A correspondent of the *Prairie Farmer* writes: "That bugs may be kept from peas, if before planting they are soaked for two or three days in cold water. Be sure that there are no buggy peas about the premises and you will raise as good peas, and as free from bugs, as from seed that is fresh from Canada.

THE AMHERST TRIAL OF IMPLEMENTS.

The committees of examination at the trial of Mowers, Tedders, Horse-rakes, &c., held by the New England Agricultural Society at Amherst, Mass., last June, have just (Aug. 7,) published their report. The bulk of the report consists of detailed descriptions of the several machines furnished by their builders or proprietors. From a table headed "Schedule of Dimensions, Record of Trial, Test of Draft, &c., of Mowers" we make the following abstract of the statistics of the machines which took the gold and silver medals:—

COST, DIMENSIONS, DRAFT, QUALITY OF WORK, &c., OF MEDAL MACHINES.

TWO-HORSE MACHINES.

	Perry.	*Buckeye, No 2.*	*American*	*Clipper, No 2.*	*Knisfen*	*Granite State.*	*Advance.*	*Union.*	*Eagle.*	*Ætna.*
Price,	$125	$125	—	$120	$135	$130	$120	$125	—	$120
Diameter of driving wheel,	28 in.	30 in.	37 in	30 in.	33 in	37 in	32 in.	30 in.	32 in.	31 in.
Breadth of driving wheel,	3½ in.	3½ in.	3 in.	3½ in.	3½ in	3 in.	4 in.	3½ in.	—	3½ in.
No. of double vibrations to each revolution,	26	24	30½	24½	23	3¼	28	29½	26	23
Distance between the fingers,	3 in	3 in.	3 in	3 in	3 in.	3 in.	3 5/16 in.	3 in.	3½ in.	3 in.
Weight of mower,	631¼ lbs.	614½ lbs.	722 lbs.	560 lbs	675¼ lbs	668½ lbs.	713 lbs	659½ lbs.	736½ lbs.	793 lbs
Time of cutting the lot,	18½ min.	33¼ min.	23½ min	17 min.	21½ min	24 min	19¼ min	20 min	24 min	18 min
Time lost,	1	8	11	2	—	4	—	—	2	2
Number of clogs,	15 sec.	1¼ min.	8	45 sec	—	20 sec.	—	—	30 sec	40 sec
Evenness of running on scale of forty,	—	37	33	30	25	35	20	30	30	32
Quality of work, on scale of forty,	35	32½	38½	31½	29½	33½	31	29½	30½	31
Adaptation to uneven surfaces, etc.,	32	23½	28½	23½	23½	28½	25	17½	21½	16½
Number of yards cut,	2194	216	215	221	216	212	222	200	228½	226
Total draft,	61,400	42 200	51 460	40 650	42,950	46,600	53 300	53 400	51.8.0	61,600
Average draft,	234.16 lbs.	198 3 lbs.	239 80 lbs	203.32 lbs.	198 84 lbs.	219.34 lbs	240.49 lbs	267.00 lbs.	226 69 lbs.	278.11 lbs
Width of swath,	4 ft. 6 in.	4 ft.	4 ft. 6 in.	4 ft.	4 ft. 6 in.	4 ft. 6 in.	4 ft.	4 ft. 6 in.	4 ft.	4 ft.
Mark for quality of cut on scale of forty,	36	37	40	36	30	38	33	33	36	36

ONE HORSE MACHINES.

	Buckeye	*Granite State*	*Knisfen.*
Price,	$115	$120	$100
Diameter of driving wheel,	28 in	30 in.	28 in.
Breadth of driving wheel,	3 in.	3½ in.	3 in.
No. of double vibrations to each revolution,	22	22	23½
Distance between the fingers,	3 in.	3 in.	3 in.
Weight of mower,	402 lbs.	544½ lbs.	512 lbs.
Time of cutting the lot,	18 min.	16 min.	11½ min
Time lost,	—	9	—
Number of clogs,	—	21 min	—
Evenness of running on scale of forty,	39	37	35
Quality of work, on scale of forty,	33	38	30
Adaptation to uneven surfaces, etc.,	—	—	—
Number of yards cut,	220	213	219
Total draft,	87 800	87 8 0	41 80
Average draft,	171.81 lbs	177.45 lbs.	2.2 28 lbs.
Width of swath,	4 ft.	4 ft.	4 ft.
Mark for quality of cut on scale of forty,	—	—	—

After giving an account of the trial, the substance of which was published in the FARMER at the time it was held, and the descriptions of the machines above alluded to, the committee make the following brief and rather unsatisfactory report, and announcement of premiums on mowing machines:—

In examining the mowers on trial, certain mechanical differences of a radical nature were discovered, which are worthy of careful consideration. Three mowers were constructed on the principle of the cutter bar on a line of the axle. These are the Granite State, Perry and American. Two machines had the cutter bar in the rear of the axle. These were the Ætna and the World's. The remaining machines had the cutter bar in front of the axle. The committee would call the attention of parties interested in mowers to these important differences, and would refer to the table for the comparative weight and draft of these various classes of machines, as well as the quality of their work, and their adaptation to mowing uneven surfaces, and overcoming obstacles.

Another principle by which the cutter bar can be rotated on its axis so as to accommodate itself to different kinds of grass, is also worthy of careful consideration. References to the descriptions of the machines will show in what instance this principle has been adopted, and the table will show the results of its operation when applied.

The committee have been governed in making their awards, by the record established by figures at the trial, considering also the value and importance of the points made prominent in each individual case by those figures. They have also considered that the award to any special machine, is a recognition of all the machines of that patent.

In classifying the machines as they have done, they have recognized the fact that improvements have been going on so rapidly in the construction of mowers, that more than one have reached their highest point; not forgetting, however, that in the future some one of the first class may advance beyond its associates in that class. They have endeavored to accept the existing state of things and they will look with interest for future improvements and changes.

In awarding the premiums on mowers, they passed the following vote, viz.:

Voted, That in comparing notes and figures for deciding the quality of mowers on trial at Amherst, it is found that many of the machines are so nearly equal to each other, that a classification is deemed just and proper; and in view of this the committee make the following awards:—

First Premiums.

The Society's Gold Medal to—

The Perry Mower, entered by Alvin Hastings, of Palmer, Mass.

The Buckeye Mower No. 2, entered by A. B. Barnard, West Fitchburg, Mass.

The American Mower, entered by Z. Chaffee, Providence, R. I.

The Clipper Mower, No. 2, entered by Belcher, Taylor & Co., Chicopee Falls, Mass., and

The Kniffen Mower, entered by O. Griffin, Agt., Worcester, Mass.

Second Premiums.

They award the Society's Silver Medal to—

The Granite State Mower, entered by Newhall & Stebbins, Hinsdale, N. H.

The Advance Mower, entered by T. Nishwitz, Brooklyn, N. Y.

The Union Mower, entered by Alzirus Brown, of Worcester, Mass.

The Eagle Mower, entered by H. J. Harrington & Co., Valley Falls, N. Y., and

The Ætna Mower, entered by L. M. Hoge, Salem, O.

Third Premiums.

They award the Society's Diploma to—

The Young Warrior Mower, entered by F. Bramer, Little Falls, N. Y.

The World's Mower, entered by E. Ball & Co., Canton, Ohio.

The Eureka Mower, entered by Wilber, Stevens & Co., Poughkeepsie, N. Y.

The Remington Mower, entered by C. M. Wilbur, Ilion, N. Y.

Class 2—One Horse Mowers.

They award to One Horse Mowers the following premiums:—

1st Premium. Society's Gold Medal to the Buckeye One Horse Mower, entered by A. B. Barnard, West Fitchburg, Mass.

2d Premium. Society's Silver Medal to the Granite State One Horse Mower, entered by Newhall & Stebbins, Hinsdale, N. H.

3d Premium. Society's Diploma to the Kniffen One Horse Mower, entered by O. Griffin, Worcester, Mass.

Horse Rakes.

The committee make the following awards of premiums on horse-rakes:—

1st premium, the Society's Silver Medal to the Bay State Rake, entered by A. B. Barnard, West Fitchburg.

2d premium, Society's Diploma to Warner's Sulky Revolving Rake, entered by H. N. Tracy, Essex, Vt.

And they also award to Streeter's Horse Rake, the Society's Diploma.

Hay Tedders.

The committee after stating the claims of the manufacturers of the several Tedders, and giving their draft as ascertained by a common dynamometer, as follows:

Bullard's	175 lbs.
Atlantic	150 lbs.
American	150 lbs.

make the following announcement of premiums:—

1st Premium, Society's Silver Medal to the American Hay Tedder, entered by the Ames Plow Company.

2d Premium, Society's Diploma to the Atlantic Tedder, entered by A. B. Barnard, West Fitchburg, Mass. And they also award a Diploma to Bullard's Tedder,—the Society's Diploma.

Hay Forks.

Raymond's Elevator was the only one exhibited. It received the Society's Diploma.

A FINE FIELD OF OATS.

The oat and rye crops this year, appear to us, as they stand in the field, to be better than we have ever seen them before. Unless the stone walls that enclose them are unusually high, the crops do not have to get on tip-toe to look over them.

On a field of four acres in the town of Acton, on the farm of Mr. SAMUEL HOSMER, which we had the pleasure of looking at a day or two since, single plants were found measuring nearly *six feet* in height! The heads of grain bore a fair proportion to the stems. The average height of the stems throughout

the field must have been very nearly four feet! The oats are of the *Norway* variety. On counting the number of grains on each of three heads, one was found to contain 75, another 79, and the third 90 grains. Counting the grains on three of the finest heads that could be found in a field of common oats, there were found on the first, 23, the second, 25 and the third, 26 grains.

It is generally supposed that oats are a poor crop to seed down land with; that they occupy the land too much, both by their roots and their shade. In our practice, however, we have never succeeded better with any other crop. We gave special attention to this point in examining Mr. Hosmer's fields, and found as handsome a "catch" of both clover and herdsgrass as we ever saw, notwithstanding the very heavy crop of oats standing on the ground. We understood him to favor the use of oats as a crop, when seeding land to grass.

We were much interested in the appearance of Mr. H.'s farm, and hope to be able to spend more time on it at some future day.

Since writing the above, we have received a single stool of the same variety of oats from the farm of Mr. GEORGE BROOKS, of Concord. The stool before us has every appearance of having sprung from a *single oat*, and yet the head contains, according to Mr. Brook's counting,—*one thousand and seven hundred distinct grains!* On a piece of Nova Scotia oats, the average grains on a head were only about 27. He states that the "catch" of grass seed surpasses anything of the kind he ever saw; the herdsgrass standing about a foot high all over the field, and the clover, sowed at the same time, thick and luxuriant.

MILK FEVER.

A correspondent of the *Ohio Farmer* gives the following account of his treatment of a large, fat cow which began to have symptoms of milk fever, on the second day after dropping her calf. Her milk stopped, she breathed hurriedly, and her flesh trembled. She grew rapidly worse. I gave her a pint of linseed oil, and then threw over her a linen horse-blanket that I kept constantly dripping wet with cold spring water. In about two hours after the first dose of oil I repeated it, and continued the use of the water. I was up with her the whole of the night. The next day I continued the use of the water, but used less, as the heat of the body seemed to subside. At night she was able to stand, and her milk began to flow. In a few days she was well and had no further trouble. While she was sick I gave her what water she would take, though at first I gave it warm. Her physic operated freely.

On this the editor of the *Ohio Farmer* remarks, "cold water is, doubtless, one of the best remedies that can be used in cases of milk fever, and the most natural, for cows will often seek streams or springs when first attacked, and lie in the water until restored. It is nevertheless important to exercise care in the use of cold water, for although of great potency in the early stages of the disease, it is fatal if applied freely after the animal has lost her vital energy."

For the New England Farmer.

WHERE SHALL I LOCATE?

This question is, without doubt, a fruitful theme for discussion at many a fireside where the FARMER is a regular visitor; for it has been constantly agitated for many years past. It is heard in private conversation, is seen in the papers; it is put by friend to friend, by stranger to the stranger. The press teems with articles in one form or another tending to help decide it; and will you, Messrs. Editors, permit me to add to such contributions by calling the attention of your readers, contemplating an early removal, to a county where good farms can be bought cheap?

It is in one of the older States, lies upon the sea shore, and has long been settled. Its surface presents an ever varying succession of plain, hill and dale It is well watered by rivers, brooks and springs. Every town has its pond or ponds of a size which, in the old world, would be called lakes, with some romantic name. The scenery is everywhere pleasant and attractive—and around some of these lakes, by the rivers and along the rock-bound coast it is picturesque and beautiful. With this great diversity of scenery, there is every opportunity for displaying an equally varied style of rural embelishment, and where the hand of man has adorned his home according to the best rules of landscape gardening, it is difficult to find in this country more cozy and attractive residences.

The county embraces a large variety of soils, which are so intermixed, that three and four kinds are often found upon the same farm. Their general character is good. They are rather hard to be worked, but are retentive of manure and seldom fail to repay well directed labor. Only the light lands, or those easily worked, have been impoverished. The wet lands of which there is a large area in the runs, meadows, marshes and peat bogs, are richer than when the first settlers begun to clear up their farms. It is only within a few years that the subjugation of these lands commenced in earnest. It requires but little engineering skill and outlay, to relieve them of

their surplus of water and render them highly productive. This variety of soils enables the tiller to cultivate as many different crops as it is expedient for one man to do. An entire failure of crops from frost, drought, blight, overflows, &c., rarely or never happen, which cannot be said of some parts of our country, possessing a richer soil and a genial climate.

There are no toll bridges; no toll gates or plank roads. Every town is crossed once by a railroad and many twice. Only a part of the expense of keeping common roads in repair falls upon farmers, as there is so much tax paying property of other descriptions. The social, educational and religious privileges are all that can be expected in a long established community in a State that intends to be in the first rank in intellectual and moral progress.

But the chief advantage is the ready, home cash markets. There are already in the county four cities, and one or two more prospective. These are situated along its borders and large towns and flourishing villages so intervene, that few farms are more than six or seven miles from market. Thus farmers can reach the consumer directly, and the profits of middle men be secured to themselves. Here are quick sales for all that is raised, for the county is a large importer of provisions. The net products of more than fifty thousand acres above what is raised within its own limits are annually consumed; and the rapidly increasing population is requiring more and more every year. The consumption being greater than the production, the county is in a sure way of increasing the fertility of its land, if a judicious use be made of the waste materials. Beside the fertilizers that can be obtained in villages and cities, at the paper and woolen mills, soap work, tanneries and other manufactories, there is an almost inexhaustible supply in bogs, peat meadows, marshes and along the sea shore.

In the midst of these advantages there are many farms for sale at thirty to seventy-five dollars per acre including all improvements. And here are excellent opportunities for men with small means to purchase the lower priced farms. The titles are sure; terms of payment very easy; the land well enclosed, generally with stone wall; fruit trees already in bearing condition; wood enough for home consumption, if not, coal can be had at sea board prices; buildings comfortable, far better than the houses of the settlers of the South and West; the farms are not worn out, but simply run down. The purchaser can devote his whole energy to the cultivation and improvement of his land to produce and sell in markets where produce averages higher prices than in other parts of the United States except the gold regions, and buy his groceries, dry goods, hardware, &c., at lower rates than he can in the valley of the Mississippi. If he will only practice voluntarily a part of the self denial which he must from necessity submit to in a new country, he can speedily pay for his farm; while from the first, he and his family can enjoy comforts and pleasures, which would require years of toil and privations to attain in a sparsely settled district of the South or West. No experienced person will advise a farmer to emigrate to the South without considerable capital; and land at the West with improvements and near markets commands high prices; and it will cost more to buy new land and put upon it buildings and other requisites to a good farm, than to buy farms here with all modern improvements, to say nothing of what is lost by years of patient waiting for the means to get them.

But some one may say, is it not a discredit to a locality to have many farms for sale? If the desire to sell arose entirely from the unprofitableness of the business or the unhealthy character of the climate, it would be so. The truth is agriculture is not really popular with the young men and women; they seem to have a greater love for trade; the mechanic arts and city life, rather than for the farm. Agriculture is an old story, and a slow means of acquiring wealth and position, while manufacturing is something new and has paid remarkably well. Many who left the farm to engage in it have quickly acquired a competency. This creates a discontented feeling with those who remain at home. They wish to go somewhere and do something different from what their fathers are doing. Not a few have gone to the West for a change, and without really knowing how well they might do in their own county. Hence many old farmers are left alone without sons or sons-in-law who want the farm. Such, of course will be sold at the first opportunity. This cause largely increases the number offered for sale through the common order of events.

I have thus briefly pointed out some of the advantages of Essex County, Mass.; and what has been said of it, may in the main be affirmed of scores of other counties in the Eastern States. The idea that a farmer invariably improves his circumstances by locating in a new country is deceptive; it has been carried to an extreme. Golden opportunities about home are overlooked in the eagerness to find something better in the far off distance. Thousands of desirable farms can be bought in the sea board States for less than present cost of fencing and buildings. If the same amount of energy, diligent study and money expended in searching for a good location in some distant State, with the industry, patience and self denial in establishing a comfortable home upon it, were displayed here, purchasers would quickly find themselves the independent owners of profitable farms. The fallacy of the doctrine, promulgated with the rapid extension of railroads, that distance

from market is of little account, will ere long be clearly proved to all, and it will be seen that it is an important consideration to be located near great markets of consumption and exportation, even though the soil does not possess the virgin fertility of prairie land.

Lawrence, Mass., Aug., 1869. N. S. T.

For the New England Farmer.

FINE AND COARSE WOOL.

At the earnest request of a number of farmers who have written to me making inquiries in relation to the proper method of breeding and feeding, of buying and selling, both sheep and wool,—in short, my whole experience for the last thirty years in this branch of farm stock, I have concluded, with your consent, to reply through the columns of your paper.

In the spring of 1834, I bought the farm on which I now live, and stocked it with Merino sheep, expecting to pay for it from the proceeds of the flock. I spared no pains in improving my flock until my farm was fully stocked with a most beautiful flock of large, fine young sheep at a cost of about three dollars per head. My first clip of wool sold readily at sixty-five cents per pound and my lambs were worth a dollar and seventy-five cents each.

Had these prices continued, raising wool and lambs would have been, for those times, a fair business. About this time South Carolina doubled her fist and shaking it in Uncle Sam's face declared that unless he would hoist his gates to foreign importations his kingdom should speedily come to an end. So the Government adopted the Clay compromise. Under this compromise the price of fine wool from this same flock of sheep, went down from sixty-five to twenty-nine cents a pound.

After a loss of five years' time (and the most important five years of my life) I found myself obliged to stop raising fine wool. I sold nearly my whole flock except enough for an experiment in crossing with long wools. I then bought a very superior Cotswold buck lamb and a very nice pair of Cotswold yearling ewes, and this cross was the commencement of my breeding Cotswold sheep. Crossing the Cotswolds on the Merinos has been attended with very fine results. I occasionally added to my number of pure bloods, until I had a flock of twenty or thirty. I sold the products of one of the first two sheep I bought for fifty dollars for one year, besides the fleece, and the descendants from them have been as good as I have ever raised. I have often sold the income of a single Cotswold sheep for more clear money than I have ever realized from a cow.

In regard to their propensities for rambling, I can say truly that there is no breed of sheep more quiet or orderly, if kept as they should be. It is impossible that they should be otherwise, for, what headway would sheep weighing one hundred to two hundred and fifty make in jumping over a rail fence? A sheep of this breed weighing two hundred pounds would sooner starve than jump over a four rail fence.

In a recent tour to Vermont I noticed that the pastures on some of the farms were literally black with Merino sheep, and the all-important question with the farmer is, what shall we do with them? To raise fine wool at the present prices does not pay. "We are disgusted with keeping fine wooled sheep." I am often asked how will it do to cross them with long wools; and here again I can only give my own experience and observation.

We will suppose a farm of four hundred acres fully stocked with fine sheep and those not of very large size. If the weight of the whole flock was in half the number of sheep it would be easy to decide. I should say by all means breed them to *full blood* Cotswold bucks; send the buck lambs to the butcher and keep the ewe for breeding purposes. Give them the best possible chance at feed, both summer and winter, and the lambs by the middle of August should weigh fifty to sixty pounds and sell in the market for eight cents a pound which would be about four dollars or $4.50 per head, which, added to the price of the fleece, would make a fair income from a sheep. Suppose the fleece to weigh five pounds, and to sell at forty-four cents per pound, the fleece would then bring two dollars and twenty cents. Add to this the price of the lamb, at four dollars, and we have an income of six dollars and twenty cents as the income of a sheep.

But with a farm fully stocked with sheep we cannot obtain this result, so it will become necessary to reduce the flock one-half, or more than one-half would be better. But how is this reduction to be made without loss? I answer that, if the first cost of the flock was more than their present value, it cannot be done; but there is the choice of losing now or of keeping on increasing the flock and making a greater loss hereafter. But the loss in numbers should be made up by an increase in the size of the remainder of the flock. Raising market lambs in connection with the raising of fine wool is a paying business. But the sheep of Vermont, as a general rule, are too large in numbers and too small in size. A single cross with the Cotswolds of large growth will very much increase their weight and produce a sheep well adapted to raising wool and market lambs.

But all at once, while the breeders of fine-wooled sheep are making arrangements to change their flocks somewhat to meet a demand for long wool, the merchants of Boston send a petition to Congress for the re-establishment of the Canadian reciprocity treaty. Farmers should oppose this measure, as they are perfectly able to supply our manufacturers

with coarse wool, and will soon do so at fair prices, if they are allowed a fair chance.

T. L. Hart.

West Cornwall, Ct., 1869.

REMOVING HONEY-BOXES FROM HIVES.

Supposing that the reader has hives of the most approved patterns, and has placed the honey-boxes upon them at the proper time, I propose to give a few directions as to the best way of removing them when filled. It is never good policy to destroy a single bee when it can be avoided, and especially in the honey-harvest, when every bee is required to gather the produce of the flowers. Careless apiarians are very apt to destroy bees unnecessarily, while obtaining surplus honey. Where hives are so constructed as to allow of its use, a piece of sheet-iron or tin, to slide under the box to be taken off, so as to prevent the bees from below from flying out when the box is removed, is very handy. Smoke of some kind, (either tobacco, rags or wood, will answer the purpose,) and should always be used to quiet the bees, and prevent them from stinging the operator. A little blown under the box as it is lifted from the hive will cause the bees to be very peaceable and harmless. As soon as a box is removed, an empty one should be put on, for if it be delayed, the bee keeper will often lose the best of the harvest, for a few days in the height of the honey season, are often of more value than weeks afterwards would be.

The best method I have ever tried, and the one recommended by Mrs. Tupper of Iowa, for driving the bees from the boxes, is to take them off just before night and place them upon a table after supper. They should be inverted, and several of them can be placed side by side, and a box of some kind turned over them, which is just large enough to cover the entrances to the caps. In the morning the bees will be found clustered together, when they can be set out of doors and allowed to seek their own hives. Or, if it is preferred, each set of boxes may be numbered, and kept separate from others, and the bees emptied in front of the hive from which they were taken. The chief advantage this plan possesses over others, is that it prevents the jarring of the boxes, which in warm weather, when the comb is tender, often does serious injury to the honey, both in appearance and value.—*Rural American.*

TRAINING HORSES TO BE SAFE.

It is easy to train a horse not to be dangerous. It is easy, but it requires patience and good sense in the trainer, and good sense in the colt too. Some colts are natural fools and can never have sense trained into them. It is not at all difficult to train a young horse to be gentle and quiet under almost any circumstances; and if something unusual should terrify him, he would run to his master sooner than run away from him. A horse properly trained will always look to the rider or driver in the time of fright, for protection; and instead of kicking and tearing everything to pieces, when scared, he will, when he sees you standing by him, and feels your hand on his head or on the rein, put his trust in you, and regard you as his only hope in time of danger.

This was often illustrated during the war. All who served in the cavalry or artillery force have seen how terribly frightened a horse appeared the moment his rider tumbled from the saddle. It mattered not how loud the thunder of the guns roared in battle, nor how great the confusion in the hour of deadly strife—the horse seemed unconscious of danger until left alone, without a rider or attendant. The moment the rider's hold was released and the steed found himself separated from the one he was trained to regard as his protector, that moment he became furiously wild, and would begin to neigh and run in every direction, oftentimes pressing into the group in the front rank, seeming to find comfort by rubbing his sides against the legs of the riders of other horses.

Every farmer who raises colts, could, with a little care, make them familiar with the saddle and harness on their back or under their belly, and also teach them to hold back a carriage on a down hill grade, by bracing their hips against it. A horse taught in that way, would not be scared if the rotten breast-strap should give way or the pole break, and let the carriage against him.

Educated horses will always be saleable and bring a paying price. A really serviceable and valuable horse is seldom seen on the market, in any of the large cities. Those that are free from blemish are generally uneducated, and as dangerous at times as if they had never been hitched to a carriage. Farmers can raise colts that will pay well, by giving some attention to educating them for the various purposes horses are used for.—*Rural World.*

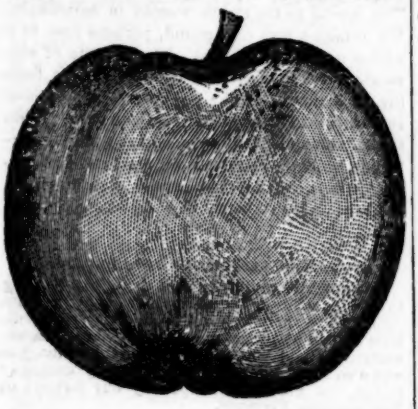
Bag Holder.—A very convenient arrangement for holding bags while filling them may be easily made as follows:—Take a piece of plank about twenty inches long and a foot wide, bevel off the sides a little and nail strips of thin boards, that will spring, six or eight inches wide to it, for uprights. The plank base should be beveling enough to make the uprights about fifteen inches apart at the upper ends. The bag is placed between these, and the upper end folded over the ends of the shoulders two or three inches. It will be held firm and in a convenient position for filling. The uprights should be just long enough so that the bag will rest upon the plank when being filled.—*Ohio Farmer.*

EXTRACTS AND REPLIES.

TETOFSKY APPLE.

Of Russian origin, like the Red Astrachan. Both are among the earliest of apples. Both are extremely hardy, and adapted to a wide extent of country, even the northern limits, where few but the crab apples succeed.

The Tetofsky is now ripe, August 3, 1869, and is remarkable for bearing while very young, even



trees the second year from bud in the nursery now bear one to six specimens, clustering six inches to three feet from the ground.

The tree grows very stout, has reddish yellow bark, naturally takes a dwarf habit, remarkably large leaf, sets very full of fruit spurs. It is a tree that once seen is always remembered without label. Bears every year. Fruit of medium size; pale pellow, with dull red stripes covered with white bloom; ribbed, short stem in deep cavity, calyx often closed in broad basin, surrounded with knobs; flesh white, small core, few seeds; slightly acid, excellent for table cooking; not new, well tested in many parts of the country; in great demand on account of hardihood in the great Northwest; adapted also to North New England and Canada. J. W. MANNING.

Reading, Mass., 1869.

DAMAGED LIME AS MANURE.

I have some casks of lime that have been damaged by water. Can you inform me of the best way of applying it to land for agricultural purposes?

Will it do to spread on and plough it in? If so, in what quantities should it be used to the acre?

Will it be of any use to put on land about to be sowed down, without being made into a compost? How will it do for trees? C. H. B. BRECK.

Boston, Aug. 10, 1869.

REMARKS.—Let it air-slake, and spread broadcast. That is the least trouble. If slaked with water, as masons do, a smaller quantity will answer, when applied immediately, as in this state it is quite soluble, but very slowly so, after it has been exposed to the atmosphere and become like chalk. The use of lime promotes the *permanent* fertility of the land, for unless washed out by floods, it can only be removed from the soil by becoming the food of plants. Some writer has stated that "on poor, peaty soils, no other manure can be compared to it, either for powerful effect, or for rapidity of action; and its influence is nearly as great on the stiffest clay land."

The amount used on an acre should vary with the kind of soil; that which contains most organic matter will bear a larger proportion than that which is more free from vegetable or animal remains. In England, very large quantities are sometimes applied; but unless upon old pastures, or moist lands covered with mosses, we think it entirely unnecessary. Twenty-five bushels per acre answers an admirable purpose, if repeated once in three or four years. If too much is applied, the land becomes *tired* of it as it is termed in England, and instead of being beneficial it seems to have the contrary effect. We have heard it stated that five bushels of quick-lime, slaked, and spread upon the surface, is all that the plants will use in a single year, and that it will prove highly beneficial on most soils.

HORSES' FEET INJURED BY STANDING ON A HARD FLOOR.

What shall I do to restore my horse's fore feet to a natural state, (if I may use this expression,) as they have become dry and hard by standing on a dry plank floor in my stable, and which I think has caused a little lameness in one foot? Would it be advisable to make a bag of sufficient dimensions and fill it with fresh cow manure, and sink the whole foot in it in order to moisten the walls of the foot all around equally? Please advise me as to the best method. Permit me to say that I do not find as much on the management and treatment of horses in the FARMER as I should be pleased to. Will not some of our experienced horsemen be so kind as to contribute more on that subject? SUBSCRIBER.

East Taunton, Mass., July 30, 1869.

REMARKS.—We have no experience with respect to the use of cow manure in the treatment of tender feet. A few years ago we had a horse in the condition described above. We took away about four feet of the floor, on which the fore feet stood, and filled up the space with clay and sand well bedded down. It took three cartloads. Since that time our horse has stood on this, instead of a dry floor, and has done the better for it. When the heels have become contracted from standing on a dry floor, it is difficult to find an effectual remedy. If you try the cow dung, some day please report the effect. In this connection it may be well to reprint the following, which we copied a few weeks since: "An old stable keeper in England says he has never had a bad foot on his horses since he commenced the practice of bedding them on a thick layer of sawdust. Pine sawdust he finds the best, oak the worst."

If we had any word that would enforce our correspondent's appeal for more frequent contributions on the management of horses, we would give it a hearty expression. But how is it, Mr. Subscriber, with yourself? Might not you communicate some fact from your own observation and experience that would not only be of service to some, but call out others who may perhaps, like

yourself, be regretting that they do not see as much in the FARMER on the treatment of horses as they wish to?

A DAMP HOUSE.—PRUNING WHITE PINE TREES.

The NEW ENGLAND FARMER being a sort of farmer's Bible, it is almost indispensable in every family. And the eleventh commandment is this: "Thou shalt take the NEW ENGLAND FARMER to obtain a knowledge of all earthly blessings." It also informs us to "ask and we shall receive. Seek and we shall find."

Therefore, Mr. Editor, I wish to ask a few questions: What shall I do to prevent my house, and the things therein, from moulding in the winter? The dampness seems to come up through the floor, and wets and even moulds the paper; and in fact everything in that part of the house where there is no fire kept. It is a plank house, so called, and the finish put on the plank both sides. It has a small, wet cellar, only under the kitchen. Will enlarging the cellar be the cure? When is the best time to trim little pine trees? W. D. COLBY.

West Springfield, N. H., July 7, 1869.

REMARKS.—A damp house is not only an uncomfortable, but an *unhealthy* house. The first thing to be done is, to secure quick and thorough drainage all about it. Follow this up by digging a cellar under all that part of it, at least, where you live and sleep, and provide such windows in the cellar as will afford free ventilation through it. In clear, windy weather, open these windows for a few hours, frequently.

If the sills of the house rest very near the ground, and the planking stands perpendicularly upon them, it is possible that dampness may be carried up by what is called capillary attraction. If so, the sills should be raised and set on stone underpinning.

Trim the little pines when they are making *the least* growth, because then there is the least sap in motion to run out.

But why do you prune the pines? Are they forest pines? We ask for information, not being decided as to whether it is best to trim a young evergreen forest or not.

GEOFFREY PIT.

I saw in the last FARMER a description of the "Geoffrey pit." I wish to inquire the proportions used of the saltpetre and sal ammoniac to a gallon of water; also the price by the hundred pounds. What we want is manure and that properly applied. I told my neighbors about ten years ago, when I first began here, that the great study of the farmer should be to make manure. To this some replied the great study of the farmer is to get a living. Well, I built a barn with a cellar under it. I have drained my moist land, and removed the stumps and stones. Where I then cut about one ton of hay, I now cut six. The work has been done mostly by odd jobs. I recollect well the expression used by one man, who came along as I was digging up a large stump in a slough hole,—"that land will not be good for anything after you get it out." A few days since I cut at the rate of two tons of hay to the acre on the spot. L.

Winchendon, Mass., July 29, 1869.

REMARKS.—Mr. Baker, in his description of the "Geoffrey pit," does not give the strength of the solution of saltpetre and sal ammoniac. Refined saltpetre requires about five times its weight of cold water to dissolve it. Sal ammoniac about three times. Crude saltpetre, which contains common salt and nitrate of lime, is imported largely from Calcutta, and is probably obtained in Ceylon very much cheaper than it can be here. The powder makers and the dry salters can tell the price. This would be the article wanted in agriculture. We presume that one pound, perhaps less, to a gallon would be sufficient. The muriate of ammonia or sal ammoniac is obtained chiefly from the "gas liquor" at the gas works, by means of sulphuric acid and common salt and heat. From the sal ammoniac thus obtained, are made the carbonate, sulphate and other preparations of ammonia. Crude sal ammoniac ought to be very cheap. A few pounds to a barrel of water would be sufficient.

IS MUCK A PROFITABLE TOP-DRESSING?

Can muck be profitably used for a top-dressing to mowing lands? The soil in this section is of slate formation, rather stony. Our muck is rich both with animal and vegetable deposits, black, ammoniacal. If you will inform me on this point, you will also settle a question which is very generally *talked*, but never acted upon by our farmers of Northeastern Vermont. Q.

Waterford, Vt., 1869.

REMARKS.—The use of good muck is profitable on all soils; on moist granite soils, on clay loams, and especially on *sandy* lands. It adds vegetable matter, acts mechanically on heavy soils by separating the heavy particles and lightening them, collects and retains moisture on dry lands, and is an excellent absorbent of ammonia, and whatever other salts come within its reach. Its effects on sandy lands are usually more striking than on any other, because such lands are lacking in vegetable matter. When added liberally, its influences are quite permanent, as after a lapse of more than twenty years, they may be distinctly seen. The blacker muck is, the better the quality. When it is reddish, or pale brown, and soft, it is less valuable.

An excellent way to use it is to have it where it can be thrown into the trench behind the cattle, and thus become thoroughly incorporated with the droppings of the cattle.

With most muck it is far better if thrown out and exposed to the atmosphere for a year before using it. In that condition it costs only about half as much to cart it. If you test old muck in the garden—whatever the soil may be—you will find the roots of nearly all plants clustering about and passing through it in every direction, and the growth of the plant will be vigorous.

PEACH LEAVES.

My purpose of writing is to inquire of you about the properties of peach leaves. Is it a fact, as I have been told, that peach leaves when eaten by cattle will cause death? If so, please state at what season they are most deleterious, whether when cropped from the tree or in a wilted state,

or when they fall in the autumn? I have set out quite a number this season, and I have yet to learn about the poisonous properties of their leaves, if in any considerable degree they are so. D. W. N.

Sterling, Mass., Aug., 1869.

REMARKS.—The leaves of peach trees contain a certain amount of *prussic acid*, and are undoubtedly poisonous. If eaten in large quantities they would be likely to kill cattle. We should prefer not to risk them where they could find abundance of leaves, either in a green or wilted state. Even if there were plenty of grass for the stock, they might prefer the peach leaves. Cases of death have occurred in children by eating the meat of the peach stones. The bitter taste in the leaves and stone, is occasioned by the presence of *prussic acid*.

BLACK-KNOT ON CHERRY TREES.

Thirteen years ago I took up five cherry trees, covered with black-knot, like specimen enclosed, brought them on my back four miles and set them out in the garden. They have grown well and are now handsome trees. They bear abundantly every year, afford a delightful shade and are truly an ornament to the garden. But in all directions in the neighborhood, the cherry trees are being spoiled by the black-knot. When I ask my neighbors why they allow their trees to be thus disfigured and spoiled, the invariable answer is, "I can't help it." My own trees have been preserved simply by removing the excrescences. My father carefully watches them, and as soon as a branch is found to be affected it is removed, if not too large. If the limb is too large, the "knot" is shaved off clean. This is all that has been done. On examining these black bunches we invariably find from one to half a dozen grubs or worms, varying in size from a microscopic mite to worms half an inch in length. Now as I am not much of a worm-arian, will you please to give me through the FARMER some information as to the character and habits of this destructive insect? I suppose they remain in the excrescence until the first stage of their existence is performed, when they assume a different shape, deposit their eggs on other branches and thus perpetuate the species. ZEN.

Springvale, Me., July 29, 1869.

REMARKS.—On cutting into the black mass on the twig you sent, we found two worms about one-fourth of an inch in length, with a reddish head, flesh-colored, bare bodies. But according to the books, we have yet to prove that these warts are caused by insects. Dr. Walsh, of the *American Entomologist* believes they are caused by a minute fungus, like rust on wheat, mildew on grapes, &c. He says that they ripen their seeds, or "spores" as botanists term it, the latter part of July, which then float in the air like thistle seeds, and plant themselves on the bark of the limbs of trees. Prof. Harris, in his book on Insects Injurious to Vegetation, is undecided as to the origin of the black-knot. He gives the opinions of naturalists both for and against the theory of the insect origin of the disease. He says, "but whether caused by vitiated sap, as Dr. Burnet supposed, or by the irritating punctures of insects, as believed by Prof. Peck, which is the prevailing opinion, or whatever be their origin and seat, they form an appropriate bed for the growth of numerous little parasitical plants or *fungi*, to which botanists give the name of *Sphæria morbosa*. These plants are the minute black granules that cover the surface of the wart, and give to it its black color. When fully matured, they are filled with a gelatinous fluid, and have a little pit or depression on their summit. They come to their growth, discharge their volatile seed, and die in the course of a single summer; and with them perishes the tumor whence they sprung. It is worthy of remark that they are sure to appear on these warts in due time, and that they are never found on any other part of the tree.

"Insects are often found in the warts of the plum tree, as well as in those of the cherry tree. The larvæ of a minute *Cynips*, or gall-fly, is said to inhabit them, but have never fallen under my observation. The naked caterpillars of a minute moth are very common in the warts of the plum tree, in which also are sometimes found other insects, among them little grubs from which genuine plum-weevils have been raised."

Dr. Walsh believes that the fungus that causes the warts on plum trees is of a different species from that which causes the warts on cherry trees, and that the plum-knot is not propagated by the cherry-knot, nor *vice versa*.

HABITS OF THE PURPLE MARTIN.

Can some of the readers of your worthy paper give me some information in regard to the manners and habits of the bird known as the Large Black Martin. They build in the houses of some of my neighbors erected for their use, to the number of twenty or thirty in a house, while I have one larger and superior to theirs that is always vacant. Can some reader inform me the cause?

June 12, 1869. A SUBSCRIBER.

REMARKS.—The above inquiry was submitted to E. A. Samuels, Esq., author of "Birds of New England and Adjacent States," who has very kindly furnished the following suggestions, which we take much pleasure in publishing not only as a reply to the question of our correspondent, but as containing hints that will undoubtedly be valuable to other readers of the FARMER who may like to cultivate the acquaintance of these social birds. Mr. Samuels says:—

"The peculiarity of the martin in avoiding certain houses and localities has been repeatedly noticed, but never satisfactorily accounted for. We have known of numbers of instances of the birds flocking to a martin house and crowding and fighting for possession of the apartments in it, while another house apparently as attractive, convenient and favorably located was avoided persistently.

Several points are to be taken into consideration in the erection of a martin house. It should have large rooms with entrances on different sides. We have known of a box being avoided when its entrances faced a certain point of the compass, and when taken down and turned in a different direction, it was at once inhabited by several families.

Especial care should be taken to secure protec-

tion from cats. A martin knows instinctively all the rapacity and cruelty of the feline race, and carefully avoids a house that is approachable by its enemies. We have in mind an instance of a colony of martins being destroyed by a cat that ascended the pole on which the house was erected, and from that to the present time it has been unoccupied. Ventilation is important in a martin house. It will be noticed that houses with two tiers of entrances, through which a current of air may pass, are the favorites, and an old weather beaten box with numberless cracks in it is more generally tenanted than a tight gaily painted affair. Our experience has been that olive jars are attractive tenements for these birds. They should be fastened to the eaves of the barn or on a naked fork of a tree, or on the top of a smooth pole,—the entrance arranged at such an angle that beating rains will not prove troublesome, and a small hole punctured through the further end. Vermin are serious pests in martin boxes, as in pigeon cotes, and birds will avoid them if infested.

My advice to your correspondent is, to take down his martin-box, examine it, and, if infested by vermin, give it a thorough cleansing. Change its position, and cut more entrances, on different sides, and see if its neglect is owing to its accessibility to cats. Care on these points may insure him, another season, a large colony of one of the most interesting and pleasing of birds."

A PLEA FOR THE CROW.

I wish to enter my plea for that much abused, but faithful friend of the farmer, the crow. In my youthful days it was the custom every spring for men and boys to turn out for a grand crow hunt. All the nests that were accessible were destroyed; and every crow that came within range was shot. Wonderful feats in climbing were accomplished by the boys, shinning up the huge trees on which the nests were situated, or climbing some adjacent tree and venturing out on the branches till the other tree was reached. They were considered the natural enemies of man, and by all means to be destroyed. But I have come to look upon the crow as the friend and ally of the farmer.

For the past three years I have had a piece of corn in a very exposed situation, far from any human habitation, and close by a piece of woods where the crows have reared their young; but by surrounding and crossing the field with twine, all trouble with the crows has been avoided. Often have I seen them in flocks on the trees or fences close by the corn, but never did one dare to venture within the charmed circle; while some of my neighbors who ventured to leave their corn unprotected suffered greatly, and when the crows once got a taste of the corn, it seemed almost impossible to keep them away by twine or any other means.

When the corn was hoed the second time, the twine was removed; and when we returned to the field after dinner, a flock of crows was seen on the part which had been hoed, apparently searching in the freshly stirred soil for grubs and worms, which shows that these wary bipeds thought the danger was removed when the twine was taken down; and which also shows their usefulness to the farmer in destroying the insects and worms which are injurious to his crops.

Their value to the farmer in destroying the grasshoppers and other insects which frequent our pastures and meadows, is also great, and their destruction should should be looked upon as a calamity. I say, then, protect the crows and they will protect you. E. A. Davis.

Buckland, Mass., July 30, 1869.

Remarks.—We are reminded by the above plea for the crow of some statements made in a letter that we recently heard read from the Rev. Chester Holcomb, a missionary at Peking, written in June, soon after his arrival there, and addressed to a Sunday school in this country. In speaking of the appearance and habits of the Chinese, he mentioned two commendable traits in their character—veneration of parents and ancestors, and kind treatment of birds. Birds there were as tame as chickens, and would come close to a person without any fear. Though in a city of some 4,000,000 inhabitants, he says "there are at least twenty sparrows' and swallows' nests, with two jackdaws' and three crows' nests, in the building in which I write. In one Chinaman's dooryard I saw a tree on which there were fourteen crows' nests and they were building another!" He also facetiously remarked that in one of his evening walks a crow helped him to a certain sound in the pronunciation of the Chinese language, which he had been trying in vain all the afternoon to catch from his native teacher.

The Chinese are skilful farmers. They have cultivated the same soil from time immemorial, without impoverishing it, and without having their crops destroyed by insects. Hence their opinion of the utility of birds is entitled to respect. Still we do not propose them as arbitrators of our crow question. It is possible that the habits of their crow may be different from ours, as his circumstances and training certainly are. In this country every one must act on his own convictions. But while doing so let us treat the opinions of others with a "decent respect."

A HOME-MADE FERTILIZER.

Is it not a little strange that farmers will buy the costly patent manures, when they have on their own farms all the elements necessary for the manufacture of an article equal, if not superior, to most of the phosphates and poudrettes in the market? Why is it that they have not engaged more freely in the home manufacture of fertilizers? Is it because they have given the subject no thought, or is it because they do not know how to do it? If the latter, I propose to give what light and knowledge my own practice may afford on the subject.

As soon as the busy season of haying is over, I go to a muck swamp and haul up two or three cords of the best muck I can procure; put it in some convenient place on the ground, or on a platform made for the purpose. Then I rake up all the loose chips and door-yard dirt, with that around and inside the buildings. Now collect all the brush and other rubbish from every part of the farm, pile it all in one heap and burn it. The muck, meanwhile, should be dug over in the sun until it is quite dry. Then procure a dozen good molasses hogsheads, which may be bought at the grocery stores for from fifty cents to a dollar each; or if these are not procurable, barrels will answer. Ashes from the burnt rubbish and elsewhere, are

thoroughly mixed with this dry muck. It is then shoveled into the casks, which should always be kept under cover; mixing with it, meanwhile, all the vegetable and animal refuse on the place; all the dead animals, from a toad, snake or chicken, to a horse; all the waste blood, entrails, hair, feathers, &c., of animals slaughtered. At the same time save all the urine from the house and stables; all the soap suds and sink water; and dip up all the dark looking liquid that may be found standing in puddles in the low places of an uneven cow-yard every time it rains, and completely saturate the compost in the casks.

The next spring when you plant put from a pint to two quarts of this fertilizer in a hill, according to its strength, and you will not fail to raise such crops as you never raised before. HOME MADE.

South Berwick, Me., Aug. 4, 1869.

MODES OF TYING UP CATTLE.

I am building a barn in which I intend to stable fifty cows, and wish to learn the best method of tying them up. Is there a *swing* stanchion in use that is superior to the old fashioned way? As these cows are to stand twenty-five in a row, and heads together, I would like to know how I can have a water box constructed so that each cow can help herself at leisure, and not be in the way of feeding? JASON E. HUNT.

New Haven, Vt., July 28, 1869.

REMARKS.—We have made pretty thorough experiments in all the usual modes of tying up cattle, beginning with the simple bow, made of wood; then the chains in common use; and, tired of these, tried stanchions. After using the latter a year or two, we substitued in their place a strong leather strap two inches wide. These soon became oily and soft from use, and it seemed, that the cattle were more comfortable with them than in any other mode of tying. They could lie down on either side, and had room to move about so as to change their position considerably. But as the stalls were arranged, this liberty caused occasional serious injury, as in moving about one cow would sometimes step upon the udder or some other part of one which was lying down. This might be remedied if more space were allowed between the cows. We had not this space to spare, however, and went back to stanchions, which are still in use.

There are some advantages in the use of stanchions over any other mode of tying. The work is more quickly and surely done. The cattle are kept cleaner. Having less freedom, they cannot hook nor rob each other, and are more under control while milking.

One inconvenience in the stanchion is, that cattle, when lying down, cannot get up easily in them. On rising they throw themselves forward and strike the shoulders, so that, occasionally, two or three efforts are made before the animal is on its feet. This may be partly obviated, however, by carrying the upper portion of the stanchions forward, so that they will stand at an angle, instead of perpendicularly. This will essentially relieve them in the act of getting up. Another change which gives them more liberty, is in leaving the space wider for the neck, at the bottom of the stanchions than it is at the top. This affords the animal more room to move the head about when lying down, and it cannot get it out when in that position.

A great objection to stanchions may be avoided by a proper arrangement of the floor when the barn is built. Cattle should feed from a floor a little higher than that on which they stand; at any rate, it should not be any lower, as it quite often is. This is done by raising the leanto floor, in order to get a trench to receive their droppings. When this is done, the sleepers of the barn floor should *rest upon the top* of the timbers, instead of being dropped into mortices. Then the barn floor will be nearly on a level with that upon which the cattle stand. With some care in the arrangements, stanchions will be found the best, we think, all things considered. We have seen the "*Swing Stanchions*" in use, and noticed the movements of the cattle in them. They certainly have a pretty large liberty when so tied, can step back and forward two or three feet, and have plenty of opportunity to tread upon each other, and *can lie down only* on one side! They did not strongly commend themselves to our judgment.

With regard to supplying water so that the stock can get it at will, you may find plenty of examples among your sheep raisers, that will be worth more than any description we can give. Please write and tell us what the advantages are of watering stock in this manner.

THE CULTURE OF PIGS.—AN ADDRESS WANTED.

There have been many articles in the FARMER in regard to raising poultry, neat cattle, &c., but no one has yet ventured to enlighten us on "pig culture." Will not some of your correspondents give us the *modus operandi?*

In reply to my question in regard to wheat culture (July 24th.) you referred to Mr. Cyrus Kilburn of Worcester county. Could you, or the gentleman himself, give me his address? Strange to say, the town is not given by secretary Flint.

Franklin, Mass., Aug., 1869. P.

REMARKS.—Breed from healthy animals. Give those of all ages—and especially the breeding sow—plenty of room, in-doors and out, and always opportunity to come to the ground; that is, not confined to a stone or plank floor. Never allow them to pass a night without a dry bed, and away from currents of cold air. Have their room well-vetilated. If they can have access to the sun, so much the better. Everybody likes the sun, man and beast. Keep their skins soft by rubbing or washing. They will do it for themselves if they have a fair chance. A hog goes into the mud for two reasons,—perhaps more. First, to get a plaster over him to keep the flies off; secondly, to take off the fine dirt or scurf from the skin with the mud, when he rubs that off. Feed with regularity, but *never so much* that any will be left in the trough. Give them occasionally a drink of pure water, especially in hot weather. Add a little fine salt to their food once a week.

Follow the above rules, and you will rarely or

never have sick hogs, and they will give you as pure and wholesome flesh as that from any other animal whose flesh is used for food.

In the erection of pens, study convenience and cheapness. The pig will grow as well in a stye of hemlock boards as though it was panelled and gilded. He, too, wants space, convenience, air, sunshine, a place to rub against, and a dry bed. Give him these, but give the pen such form and place as will best suit *your* convenience.

Mr. Kilburn's address is Lunenburg, Mass., where he cultivates a premium farm.

A SICK AND DEAD HOG.

I had a valuable hog taken sick a few days ago, and to-day it died. The first I noticed was that it refused to eat, and black or purple spots came out all over it. The next day I gave it half a pound of salts, and the day following it died.

One of my neighbors had two hogs taken sick the same way a few weeks ago, and he gave them salts and turned them out where they could get on to the mud, and in a few days they got well. Mine was turned out where there were weeds and dry sand. In both of the above cases the hogs were kept in cellars under stables, where there was plenty of light and air. I should like to inquire of you or some of your correspondents what it was that ailed my hog, and also to ask for a remedy. Is a cellar an unhealthy place to keep hogs in? H. M. Brewster.

Curtis Corner, Me., July 23, 1869.

Remarks.—We have never seen a hog with the symptoms described, nor can we find any description of a disease in the books which corresponds with the symptoms given above. Perhaps some of our readers may be familiar with the disease described and can recommend a remedy.

We do not consider cellars that are dry, light, and well ventilated, unhealthy places for swine. In all the region about us, swine are usually kept in such places, and they are healthy and grow fast.

AN OLD HOP YARD.

S. R. Locke of this town has the oldest hop yard in this vicinity,—having raised hops on the same two acres fifteen years,—and now they are very thrifty, with no signs of running out. The crops for the last four years have been sold for $3,400, and the expense of raising and marketing has not exceeded $800; leaving a profit of $2600. In 1866 the crop was 21 cwt. at 30 cents per pound; in 1867, 24 cwt. at 44 cents; in 1868, 29 cwt. at 15 cents. The thrifty vines with their long arms give promise of a large crop this year.

Mr. L. makes very large hills and buries the surplus vines in the hills which are now one and a half feet high and five feet in diameter. He does not allow many runners to be taken from his yard to start new plantations, as he believes it weakens the vines.

HOME-MADE TURNIP SEED SOWER.

Here I saw a home-made turnip seed sower. A wheel eighteen inches in diameter is cut from a board. A wooden handle five feet long is attached by a bolt or axle to one side of this board wheel. On the other side of the wheel an old tin milk-pan is nailed bottom side up, (or out), and all cracks carefully stopped by putty. Holes are made in the sides of the pan close to the wire edge, which is fastened to the wheel, about one-eighth of an inch in diameter and six inches apart. This pan is the seed box, into which it is put through a hole made for that purpose in the wheel. By pushing this wheel along the ground the seed is scattered very rapidly and evenly, but it must be covered with a hoe afterwards.

OUR DAIRIES.

Some of the dairymen began to make cheese about July 15th, but before this date T. Baker of Barton, had made over 1400 pounds of butter, and Geo. B. Brewster about the same amount,—twenty-seven tubs. This tends to show that dairying is more profitable than wool growing, when butter and wool brings the same price per pound.

HAYING.

Haying will be mostly done in July this year. The crop will be a trifle less than usual on some lands, but about an average generally. Z. E. J.

Irasburg, Vt., July 25, 1869.

A NOTION ABOUT WHITEWASHING.

I have made considerable use from time to time of whitewash for buildin s, fences, hen houses, &c. The result of my experience is the conviction that no improvement has ever been made on the old-fashioned way of making it,—viz., a good clean lump of lime, slacked by pouring boiling water over it; cover tight whilst slacking; put in the salt afterwards. All the fuss about "sifting," "straining," "skimming," &c., is all bosh. Hogs' lard, rice flour, linseed oil, glue, &c , &c., lose all their essential properties when diluted in the corrosive liquid.

We know a lady who had made very successful use of whitewash about her house, who finally picked up a receipe something like the one given in the Farmer, out of somebody's "Domestic Economy Receipt Cook Book." The wash was for a "beautiful buff color," or something else. The vitriol, &c., was got at the "Potticaries" and the other fixings of the painter who was employed to put it on. Quite a large surface was "painted" in June. The result was, it remained till there came some heavy showers and rain storms, when the whole thing scaled off. The shingles or clapboards of a building kept well whitewashed with common whitewash will, apparently, last forever.

Chestnut Hills, Mass., Aug. 10, 1869. J. O. B.

SWINE IN CELLARS.—AGRICULTURAL COLLEGES.

Hogs.—Never keep them in a barn cellar, nor under a slaughter house. Reason—The effluvia and vitiated air causes disease. One-half of the pork that is sold, is only fit for *manure*. Let them have a house, and good open yard, with plenty of sods, loam and water; then health and good pork will be the result.

Agricultural Colleges.—The best are at home on the farm! What a puny race of farmers are ascending the stage. Nineteen-twentieths who go to college will never make agriculture their occupation. More farmers by practice, and a less number for giving advice. L. S. Bancroft.

Pepperell, Mass., Aug. 11, 1869.

BRINING WHEAT.—CULTIVATION AND VARIETIES.

It gives me great pleasure to know the "John's"—a good old apostolic name—are not all asleep. Now, my good "John," for the wheat pickle, use half a peck of salt to six buckets of water; stir in the seed wheat; skim off foul seed; let it stand ten to twelve hours; rake it in wood ashes or slaked lime, and sow when damp.

These alkalies are excellent fertilizers. They kill the weevil that must exist in the grain, the same as in the rice and the pea. Be sure to get it in two to three inches deep. *Root* and *stand* are

the strong points against spring kill. If you are short of manure, turn over mowing land, which is a good fallow for grain. Sow it from the first to the tenth of September—sod wheat is really the safest.

The Amber is a good variety,—as are, also, the white wheats, which make the whitest flour. They have a variety of names; but the *eye* is the best judge of seed.

I have more than answered your correspondent, "John," and hope he will set such an example to his neighbors, that they may find their barrels of flour on their own farms, instead of the prairies of the West, where the average crop is far less than in New England, and attended with the same risks in raising. HENRY POOR.

Yonkers, N. Y., Aug. 15, 1869.

BLOODY MILK.

I have a promising three-year-old heifer, that I am milking this season for the first time, which has given bloody milk all summer. As she is the only one of six that is thus troubled, I cannot ascribe it to her food. I suppose giving bloody milk is a precursor of garget. I presume that many of the readers of the FARMER have had similar cases which they have treated successfully. I should like to hear from them through your columns.

Bridport, Vt., Aug 12, 1869. INQUIRER.

REMARKS.—Give her six drops of the tincture of Aconite on some meal wet up with water, every other day for ten days. The old remedy with many was to give the cow a piece of poke root about as large as a hen's egg, by grating or chopping it fine and mixing with oats or other "mess." Mr. E. Keasor of Upper Gilmanton, N. H., recommended in the FARMER a few years ago for the garget, to take two pounds of sulphur and one pound of salt petre, pulverize the latter and mix them together; give one table-spoonful twice a day in shorts or meal until the compound was used up. Perhaps this might be beneficial in case of continued bloody milk, if the cause is similar to that of garget.

TO RID PANTRIES OF BLACK AND RED ANTS.

A few weeks ago I noticed in the FARMER, in the Extracts and Replies, a piece about getting rid of black ants in the house. As I think my mode better than the one there recommended, you may publish it, if you please. If the shelves or tables where they go are unpainted, wash them off in clean water, and without wiping, sprinkle fine salt all over them when wet. If the shelves are painted keep them *wet* for a few days with salt and water, using plenty of salt. One application is generally sufficient for the little red ants, but the black ants may need more than one.

MRS. R. C. WILLIAMS.

Paxton, Mass., July 26, 1869.

PASTURE LANDS.

I have a pasture, a part of which produces grass, while upon other portions there is a growth of brakes. Shall I plough it or shall I mow the brakes, and put on ashes and grass seed? How is the best way to deal with it?

Marshfield, Vt., 1869. CHAS. H. NEWTON.

REMARKS.—We don't know. It is just what we desire to learn, in order to work over our poor Massachusetts pastures.

If the land you speak of is stony, it would scarcely pay for ploughing and reclaiming it. If not stony, cut the bushes, or what is far better, pull them up, burn thoroughly, scratch over the surface with a harrow and sow grass seed. If you add one bushel of plaster of paris per acre, success will be more certain. Sow a variety of grass seed, such as timothy, redtop, a little red and white clover, Kentucky blue grass, and meadow fox tail. Sow somewhat more liberally than when laying down land to grass.

CURRANT WORMS.

It has been stated that by planting black currant bushes with the red, the attacks of the worms will be prevented. I had a large black currant bush at the end of a row of red ones that was badly infested with the small span worm and the brown ones. I tried the molasses remedy, and they seemed to like it very much. I next tried milk, but our kind of worms had evidently never been weaned, for they liked milk better than molasses. One sure remedy I have found. Go over each branch carefully, and take each worm with the thumb and finger, deposit it in some old dish, and when a sufficient number is collected put them in a good fire. This may be a slow, but it is a sure cure. A CONSTANT READER.

East Abington, Mass., July 28, 1869.

INSECTS ON PLANTS.—USE OF LIME.

Can you, or some of your subscribers, inform me how to destroy the small red and black ants that infest the garden and fruit trees?

Also, how to destroy the caterpillar on gooseberry bushes?

Do you consider lime good for raising crops?

A YOUNG FARMER.

North Sydney, Cape Breton, July 14, 1869.

REMARKS.—Syringe the plants with whale oil soap, or strong soap suds. Some persons contrive a sort of pipe in which they burn tobacco and blow the strong hot smoke from it among the foliage of the plants.

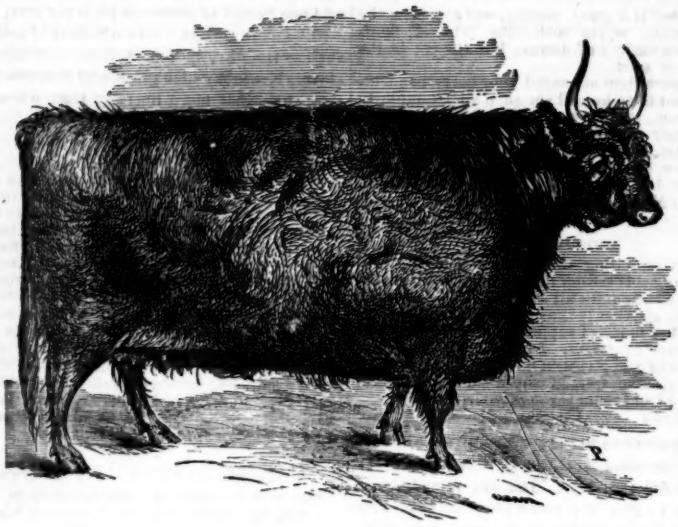
In relation to the use of lime, see remarks in reply to a correspondent, in another column.

KEEPING HAMS.

For the past eight or ten years we have kept ham nice and sweet through the summer and autumn as follows:—Cut from the bone, take off the rind and slice ready to fry. Put melted lard enough on the bottom of the tub to cover the wood: then a layer of ham, packed as closely as possible. Will a spoon fill the spaces after packing each layer with hot lard When done, pour enough over the meat to cover it. Set in a dry, cool place. If left to stand long while being used, a little lard should be kept over the top to prevent mould. That fried from the meat is as good as fresh. Meat packed in this way is much better than if partially cooked before packing, and keeps quite as well; and the bones and fragments may be used before fly-time. MRS. D. H.

Lancaster, N. H., Aug., 1869.

—The Ayrshire cow Flora imported from England in 1859, and now owned by Wm. Birnie, of Massachusetts, from July 12 to November 1, 1866, gave an average of thirty-nine pounds of milk per day. Her food was corn fodder, grass, and, in October, cabbages.



WEST HIGHLAND COW.

We present the above cut of a West Highland cow as the representative of a race of cattle that have not as yet been introduced into this country. The portrait was drawn for Mr. Allen's book on American Cattle, by Mr. Page, who visited Yorkshire county, England, in 1867.

Mr. Youatt says, "The value of the West Highland cattle consists in their being hardy, and easily fed; in that they will live, and sometimes thrive, on the coarsest pastures; that they will frequently gain from a fourth to a third of their original weight in six months' good feeding; that the proportion of offal is not greater than in the most improved larger breeds; that they will lay their flesh and fat equally on the best parts; and that, when fat, the beef is closed fine in the grain, highly flavored, and so well mixed or marbled, that it commands a superior price in every market.

"The different islands of the Hebrides contain about one hundred and fifty thousand of these cattle, of which it is calculated that one-fifth are sent annually to the main land.

"About one hundred and fifty years ago, the treatment of cattle at the Hebrides was, with very few exceptions, absurd and ruinous, to a strange degree, through the whole of the islands. With the exception of the milk cows, and not even of the calves, they were all wintered in the field; if they were scantily fed with hay, it was coarse, and withered, and half-rotten; or if they got a little straw, they were thought to be well taken care of. The majority got little more than sea-weed, heather, and rushes. One-fifth of the cattle, on an average, used to perish every winter from starvation. When the cold had been unusually severe, and the snow had lain long on the ground, one-half of the stock has been lost, and the remainder have afterwards been thinned by the diseases which poverty had engendered.

"It proved the excellency of the breed, that in the course of two or three months so many of them got again into good store condition, and might almost be said to be half-fat, and could scarcely be restrained by any fence; in fact, there are numerous instances of these cattle, which had been reduced to the most dreadful state of impoverishment, becoming fattened for the butcher in a few months, after being placed on some of the rich summer pastures of Islay, Lewis, or Syke.

"The cows were housed during the winter; but among the small farmers this was conducted in a singular way—for one rude dwelling contained and sheltered both the family and the cattle. The family had their beds of straw or heath in the niches of the walls, while the litter was never removed from the cattle, but fresh layers of straw were occasionally laid down, and so the floor rose with the accumulation of dung and litter, until the season of spreading it upon the land, when it was at length taken away.

"The peculiarity of the climate and the want of inclosed lands, and the want, too, of forethought in the farmer, were the chief causes of this wretched system of winter starvation.

"As a beef animal, the flesh of the West Highland ox is considered of the best quality in the London markets, and usually worth 1*d*, or two cents per pound more than that of the ordinary breeds. He is usually put upon high feed at three years old, and in good pasture in summer, and a full allowance of turnips and meal, with plenty of hay or straw in winter, is fitted for the shambles at about four years old."

Mr. Allen believes that this race is admirably adapted to the immense ranges of mountain lands in the older States of the union, to the plains west and north of Missouri, in Texas, &c., and sums up their qualities by saying, they are an *original* breed, bred for untold centuries in one of the roughest climates; of great hardihood and endurance; homogeneous in their natures and habits; strong in blood, with a tendency and power to transmit it upon anything with which they may be connected. The cows are not fitted for the dairy, nor is it necessary they should be for the purposes to which they are intended, yet giving milk enough to rear their progeny well. They mature early, and when matured are full in all their points. They feed their pastures closely, are active in movement, capable of ranging over wide fields, gathering their subsistance without trouble, adapted to climates and soils where other cattle would glean a bare subsistence, and thus a valuable race to introduce into the regions of country which are above named.

He hopes yet to see the Highland cattle introduced into this country. By their introduction our far southwestern grazing regions which now send us only the ragged and comparatively worthless Texan cattle, and the far northwestern wilds which send us none at all, together with our intermediate mountain ranges, would ultimately—even shortly—furnish our interior rich lands with grazing material for the best of beef, and our markets would be supplied with the choicest of flesh for consumption.

ABORTION IN COWS.

REPORT of Wm. H. Carmalt, M. D., Commissioner of the New York State Agricultural Society for the Investigation of Abortion in Cows. Albany. 1869.

This is a well written report. The Commissioner and his assistants seem to have pursued their work with great diligence, and according to a well arranged plan. The results arrived at are, we are sorry to say, mostly negative. But some points would seem to be settled, and the field of investigation narrowed.

It is the opinion of the Commission that the disease is not caused "by reason of the introduction of a deleterious substance in the food," that is, they do not believe it is caused by *ergot*, or *fungi* on grasses or cereals. Many have believed that cultivated grasses were more liable to be infested with such parasites than natural grasses, and that hence cows feeding on hay, were more subject to the disease than when in the pastures. This is an important point disposed of.

It is also settled that cows are much more liable to the disease in the advanced months of pregnancy, especially after the sixth month. Cows once affected are more subject to be affected in subsequent pregnancies, which may be an additional reason for turning them to the butcher.

It has been suggested that changing cows from farm to farm during pregnancy might have a prejudicial effect. An examination into the facts in connection with such removals showed clearly that it is so. Is this owing to the fact that cows that have once aborted are sold during the next pregnancy to avoid probable loss?

The investigation shows that breeding from immature stock increases the tendency to abortion—the percentage of cases being greater in stock of this class.

But the most important matter discussed, as it seems to us, is, whether the amount of milk given by the cow influences the process of

gestation. This discussion is conducted in a very able manner. It occupies some ten pages. The uterus and the udder are the two most important organs in reproduction. Each has its distinct function. That of the first is to protect and nourish the fœtus until its organs of digestion and locomotion fit it to be separated from the mother. Then the function of the udder comes into play, which is to furnish suitable nutriment to the young animal when separated from the mother.

Nature never intended that these two organs should carry on their functions at the same time. While the mother is carrying and feeding directly from her blood the young within her, she should not be required to feed another, or other animals, by secretions from her blood through the udder. This is an unnatural and excessive drain upon the system. Although habit, great care and abundant food enable a large part of the cows in a domestic state to endure this for a few years, yet very many fail to complete the reproductive process under this system—and the profitable term of life of almost all is shortened by it.

The cow, in a state of nature, ceases to give milk some months before the end of pregnancy. If compelled to give milk by constant milking and high feeding, in a certain number of cases the uterus refuses to continue to perform its function. The connection between it and the fœtus is separated, and the young dies, and is thrown off.

Nature does not allow her laws to be violated with impunity. It is becoming a practical question of great importance, whether high feeding and prolonged milking are on the whole profitable. We commend this Report to the careful attention of dairymen and stock raisers.

Greasing Wagons.—Few people fully appreciate the importance of thoroughly lubricating the axles, &c., of wagons and carriages, and still fewer know what are the best materials and the best methods of applying them. A well made wheel will endure common wear from ten to twenty-five years, if care is taken to use the right kind and proper amount of grease; but if this matter is not attended to, they will be used up in five or six years. Lard should never be used on a wagon, for it will penetrate the hub, and work its way out around the tenons of the spokes, and spoil the wheel. Tallow is the best lubricator for wooden axletrees, and castor oil for iron. Just grease enough should be applied to the spindle of a wagon to give it a light coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the shoulder bands and nut washers into the hub around the outside of the boxes. To oil an axle-tree, first wipe the spindle clean with a cloth wet with spirits of turpentine, and then apply a few drops of castor-oil near the shoulders and end. One tea spoonful is sufficient for the whole.—*Exchange.*

For the New England Farmer.

SUNFLOWERS.

A new interest appears to be awakened in Europe in reference to this plant by reason of the evidence that has been gradually accumulating for some years past, of its possessing medicinal properties. If we are to credit the tales that are told, it is a sure specific against intermittent fevers. M. Martin, in a paper read before the *Societe Therapeutique de France*, says, that the experiment of planting sunflowers on a large scale has heretofore been successful in the fenny districts by Rochefort, and has been proved by the Dutch to be beneficial in *neutralizing* the deleterious effects of marshy exhalations. M. Martin states that it is a proved fact, that the sunflower possesses the power of freeing the atmosphere from those germs, animal and vegetable, which are supposed to constitute the miasms that are productive of fever and ague.

If this be the case, is it not well for our fever and ague afflicted sections to be made aware of it? Much suffering might thus be avoided, and a new impetus given to immigration to those long neglected and fertile spots in the West and South, that have been pregnant with miasma.

Hitherto the culture of the sunflower has been quite limited in this country. Experiments serve to show that it is a valuable feed for poultry. It also yields a large return in oil. An Ohio farmer, several years since, averred that it would give more bushels of seed, year by year, than corn on the same surface. Admitting his statement to be true, we may from tables I find in an old encyclopædia, estimate the returns in oil that an acre will produce, planted after the manner the work indicates. One hundred plants are allowed to produce one bushel of seed, from which three quarts of oil are obtained. This would give us about forty gallons to the acre and leave us the refuse for feed, the value of which is not given. May not this refuse be as valuable as cotton seed meal?

My impression is, that the plants might, without detriment, be increased one hundred per cent. on an acre over and above the number stated, and the profits increased in the same ratio. The present facilities for extracting the oil over those in use fifty years ago, will also give us a much larger return than three quarts to the bushel.

But to return to the medicinal question, which is after all the one of greatest moment to us. The plant is easily propagated, and its seed can be mingled with the seed corn and planted at the same time, all over our extended country, resulting, it may be, in untold good to present and coming generations.

Aug. 10, 1869. K. O.

THE ORIGIN OF THE PEACH-BLOW POTATO.

Asa A. Shepherd, of Saratoga, N. Y., lays claim to being the originator of the "Peach-blow" potato, and relates the history of its origin as follows:—

"I cannot fix the exact date, but about twenty-seven or eight years ago the Hon. Samuel J. Mott owned a farm opposite the Dean's Corners' store and post-office. Gilbert Wright traded there, and a young doctor boarded with him by the name of Colby. Not being crowded with business, the Doctor and Mr. Wright planted one-half of a lot belonging to Mr. Mott, and my father and his boys the other half. We planted a row of Merino potatoes in the middle of the lot, to turn on, so as not to break down the corn, and they planted a row of Western Reds by the side of ours. In the fall my brother John and I were coming across the lot and saw some fine looking balls on the Western Reds, and picked them My wife thinks she tied some together and hung them in the cellar. As to that, I do not remember. John lived at home with father, and I lived near by, but all were working together at that time. The next spring we planted the seed, John planting on father's place, and I where I lived. He beat me the first year, my place being too much shaded by a butternut tree. Five or six different kinds came from the seed; one was called the 'Shepherd Red.' They were a great deal larger the first year than the other kinds, and less liable to rot. For a few years they took the lead, but it was soon ascertained that they ripened too late to ship in the fall, so they were dispensed with. After we had raised them together for several years, the Hon Henry Holmes, now Superintendent of the Poor of the County of Saratoga, came and purchased a lot of all the kinds mixed together, and then picked out and planted by themselves those that we called 'Calico Potatoes.' In the fall he barreled up a few of them and drew them to the canal, at Coveville, to send to New York, to introduce them, and while there he wished to fix some name by which to call them. A man by the name of Verbanks, (a shoemaker,) and Captain Brazure, spoke of their looking like a peach blow. So it was agreed to call them by that name. Afterward my uncle carried some to Massachusetts, near New Bedford, where they were called 'Saratoga Potatoes.' They were also sent West, and to New Jersey. A few years ago a man by the name of Morgan Moe picked out some of the light colored ones and called them 'White Peachblows,' which are all the rage now among our neighbors. If any one is inclined to dispute the above facts, let him write to Thomas Sweet, postmaster, Dean's Corners, Saratoga County, N. Y.; or to Joseph W. Hill, lawyer, or Henry W. Dennis, hardware merchant—both the latter named gentlemen living at Schuylerville, N. Y."

TROUBLE WITH BEES.

Will you, or some of your subscribers who have had experience in keeping bees, inform me what is the trouble with my bees? I had a swarm come out four days ago which pitched on the top of a small apple tree. I placed a common box hive over them, letting the corner of the hive rest upon a staging which I put up for the purpose, and let it remain over them until the next morning, supposing they would go up into it as they always have when I have done so by them; but they did no such thing, but remained where I first found them. I then tried to "break them up," but they only moved their quarters from the top to the trunk of the tree, where they remained until last night, when I brushed them into the hive, and they stay there, but do not work or act as if they ever intend to. If any one will enlighten me on this subject they will confer a favor and oblige an—*Amateur Beekeeper, Brooks, Waldo Co., Me., June* 14.

The bees described above probably failed to realize, when the hive was first placed over them, that they had ever been hived at all, or might be. And when brushed in at last, they may have been perfecting their arrangements to go to the woods, and so were indisposed to commence operations elsewhere. But as the above appears to have been written within twenty-four hours after the bees were finally put into the hive, combs might have been commenced in the cluster, which could not be seen without shaking it down.

The case is a very unusual one, and if the bees still persist in remaining idle, I would suggest introducing a piece of comb containing young brood. This may be fastened to the top of the hive, or supported on an upright stick fastened in the bottom board, or in any way brought among the bees, and it would be very likely to set them to work.—*M. Quimby, in Rural New Yorker.*

STRONG.—It is said that the thread of a certain species of spider—found in the South—supports a weight of fifty-four grains. As this fibre is only the one four-thousandth of an inch in diameter, this is at the rate of 123,427 pounds, or 61½ tons per square inch; good iron wire sustains fifty-seven tons per inch; good steel, sixty-six tons; good gun metal, eighty tons.

For the New England Farmer.

STANDARD OF MERIT AT FAIRS.

It is generally believed that agricultural societies are formed and hold fairs to encourage farmers to produce the best articles, and to furnish the means for comparison by which they may form an opinion as to which is best. If this is so, societies should make rules with the greatest care, so as to encourage and reward the really meritorious, and avoid commending and introducing aught that partakes of humbuggery or subserves private ends to the detriment of the public good.

If societies are formed to advance agriculture and aid the farmers, it would certainly seem that the rules which direct the action of committees in the bestowal of premiums, should also aid and direct farmers in the purchase and breeding of domestic animals. If this is a truth, do societies live up to it?

At the New England Fair, all cattle must have a pedigree to be entitled to a premium The managers of the Vermont State Fair have adopted the same rule. Now shall county societies and farmers encourage only those cattle that have a herd-book pedigree? Under this ruling, will these societies encourage the exhibition of the best cattle, or can they in all cases reward years of pains-taking in developing a breed? Will it not result rather in rewarding those who have purchased a fashionable or new breed from which to make money by sales? We ask these questions, first because there are men who have for a life-time been breeding a herd of pure-blooded cattle because they loved them, who are now cut off from showing and competing for premiums, though the animals thus excluded are above suspicion in regard to breed, and are better cattle than some with a pedigree. If it were not so, why rule them out and ignore cattle that the people want to see and the owners want to show?

In the second place, for years after Short-horn cattle were first introduced, there was not one in ten that had a herd-book pedigree, and until 1855 there had been only one volume of the herd-book published in the United States. Shall the descendants of all the early importations be ignored as unworthy of notice?

In the third place, sheep, swine, and horses are sold for high prices upon a personal warrant as to blood.

While it is proper and desirable that agricultural societies should discountenance deceit and false pretensions, it is equally proper and desirable that they should encourage honesty and excellency.

In Vermont there is a herd of Devon cattle owned and bred by H. M Hall, of Burke, President of the Caledonia County Agricultural Society. This herd was established about forty years ago. It was started with some of the first animals sold from the Patterson importation, and from time to time additions have been made from other stock of undoubted purity of blood. Mr. Hall has bred on his own farm two families, using the greatest care to prevent deterioration; but the animals are not recorded in the herd-book.

In Coventry, Vt., there is a herd of Short-horns, comprising twenty-five head, bred and owned by Hon. E. Cleveland and his son, H. C. Cleveland. This is believed to be the only Short-horn herd in the State where every animal has been bred by the owner. In 1858, Mr. C. sent by a special agent to Kentucky for some Durham heifers, which were obtained at quite a high price. A bull was bought in New York, of the Vail stock, and from this beginning a herd of great excellence has been bred, which has been shown at the State Fairs and received premiums as pure blood Short-horns. The bull *Major*, that stands at the head of this herd, is five years old and weighs 2320 pounds. The bull *Gen. Grant* is two years two months old, pure milk-white in color, and weighs 1500 pounds. One of the cows has weighed 1535 pounds. There have been many sales of young animals from this herd, at prices from $50 to $150 each, which are giving great satisfaction for vigorous, healthy growth, and excellent milking qualities in the heifers, and good stock qualities in the bulls. Eleven years ago there was less regard paid to herd-book pedigree, and these cattle have not been duly named and numbered, although bred with the greatest painstaking, and amidst a community whose prejudices were against them. Now, this herd having triumphed over local indifference and opposition and having gained a good reputation, find a new difficulty. Men who have within a very few years bought pedigree animals have succeeded in introducing a rule which excludes this stock from competing at the Fairs of agricultural societies! If these animals are inferior, they are not to be feared in competition; if they are better, is not the painstaking by which they have been produced entitled to encouragement? Is it pedigrees, or is it quality of cattle that we should encourage, and which farmers wish to buy?

Irasburg, Vt., Aug. 20, 1869. Z. E. J.

P. S.—Since writing the foregoing I have received the Premium List of the Vermont State Fair, and find that the Directors have made up an appendix, since the regular meeting, that provides for Durhams that are not registered in the herd-book. Z. E. J.

Aug. 24.

—Mrs. Alvira Robinson, of North Russell, N. Y., answers a question asked in the *Rural American* how to make butter from bitter cream by saying, when the cream is ready to churn, dissolve a little good sugar and add to it; the butter will then come in a short time. I think the cause of cream getting bitter is, that it is kept too cold while rising; the sugar helps to sweeten it.

Ladies' Department.

From Putnam's Magazine, for September.

THE BABY'S DRAWER.

There's a little drawer in my chamber
Guarded with tenderest care,
Where the dainty clothes are lying,
That my darling shall never wear.
And there, while the hours are waning,
Till the house is all at rest,
I sit and fancy a baby
Close to my aching breast.

My darling's pretty, white garments!
I wrought them, sitting apart,
While his mystic life was throbbing
Under my throbbing heart.
And often my happy dreaming
Breaks in a little song,
Like the murmur of birds at brooding,
When the days are warm and long.

I finished the dainty wardrobe,
And the drawer was almost full
With robes of the finest muslin,
And robes of the whitest wool.

I folded them all together,
With a rose for every pair,
Smiling, and saying, "Gem fragrant,
Fit for my prince to wear."

Ah, the radiant summer morning,
So full of a mother's joy!
"Thank God, he is fair and perfect,
My beautiful, new-born boy."

Let him wear the pretty, white garments
I wrought while sitting apart;
Lay him, so sweet and so helpless,
Here, close to my throbbing heart.

Many and many an evening
I sit, since my baby came,
Saying, "What do the angels call him?"
For he died without a name;
Sit while the hours are waning,
And the house is all at rest,
And fancy a baby nestling
Close to my aching breast.

For the New England Farmer.

HOUSEHOLD ECONOMY.

CONTRIBUTED FOR THE NEW ENGLAND FARMER.

Mr. Editor:—As the season for making pickles has arrived, some of your readers may like to try the

Yellow Pickle

of Virginia and Kentucky, an institution in which the accomplished housewives of that region have so just a pride.

To three gallons of good cider vinegar, put two ounces of turmeric sewed up in a guaze flannel bag, which must be squeezed every day until the strength and color are exhausted. Then add to the vinegar two and a half pounds of brown sugar; two ounces of ground mustard seed; the same weight of cloves; the same of mace, and three ounces of cinnamon. Take half a pound *each* of ginger root, horse radish, garlic or onion, and long pepper; put them in a jar of very strong salt water and let it stand three days. Then take them out, and after rinsing in clean water, cut all up fine, except the garlic, which is left whole. Put all together in dishes, and dry in the sun two or three days. When quite dry, put to the vinegar, which in three days is ready. In the meantime, soak small, soft ears of corn, shred cabbage, small cucumbers, tender bean pods, &c., in salt water. If not too salt, simply wash them in fresh water, and spread on a table previously covered with two or three thicknesses of soft cloth, and lay in the sun, turning them over every hour till dry and white. A day will be sufficient to bleach the cucumbers and dry the other things. Add them to the vinegar; stir every day for a week; then tie up tight, and in three months the famous yellow pickle is ready for use.

Sweet Pickle of Ripe Cucumber.

Cut large ripe cucumbers in small squares; simmer them gently in alum water, in which is a little salt. When transparent, drain them and pour over hot vinegar, in which brown sugar, whole cloves, stick cinnamon, and mace have been boiled. A pound of sugar to a quart of vinegar. Spice to the taste and judgment, but not too highly.

Parsonsfield, Me., Aug., 1869. Mary.

Remarks.—We are greatly obliged to our correspondent for her seasonable hints. We hope our lady readers will not forget that we depend upon them to keep this department of our paper fresh, original and attractive. Ed.

DOMESTIC RECEIPTS.

Tomato Catsup.—Take ripe tomatoes, and scald them just sufficient to allow you to take off the skin; then let them stand for a day, covered with salt; strain them thoroughly to remove the seeds; then to every two quarts add three ounces of cloves, two of black pepper, two nutmegs, and a very little cayenne pepper, with a little salt; boil the liquor for half an hour, and then let it cool and settle; add a pint of the best cider vinegar, after which bottle it, corking and sealing it tightly. Keep it always in a cool place.

Sweet Pickle.—Select fine cantaloupe or citron melons, ripe but firm, pare and seed them, and slice or quarter them. Weigh the fruit, and to five pounds of melon allow two and a half pounds of white sugar and one quart of vinegar. The vinegar and sugar must be beated, well skimmed and poured boiling over the fruit six times. In the last boiling of the syrup add the spices; stick cinnamon, white ginger and a few cloves; and when the syrup boils, put in the citron and let it boil for ten minutes, then put it in the jars; skim the syrup clear and pour over it. The pickle may be made of other fruits.

Boiling Potatoes.—There is a great deal constantly said as to the best way to boil potatoes. The following, said to be an Irish mode, is no doubt, very good. It is said that

in Ireland they always nick off a piece of the skin, put them in a pot of cold water, which is gradually heated, but never allowed to boil; cold water should be added as soon as the water begins to boil; when done, pour all the water off, cover the vessel with a cloth and in a few minutes they are cool enough for use.

Fish Chowder.—The best fish for chowder are haddock and striped bass. Cut the fish in pieces an inch thick and two inches square; take six or eight slices of salt pork; put them in the bottom of an iron pot, and fry them till crisp. Take out the pork leaving the fat; chop the pork fine. Put in the pot a layer of fish, layer of split crackers, some of the chopped pork, a little black and red pepper, a little chopped onion, then another layer of fish, split crackers and seasoning. This do till you have used your fish Then just cover the dish with water, and stew slowly till it is tender; thicken the gravy with pounded cracker; add catsup if you like. Boil up the gravy once, and pour over the fish; squeeze in the juice of a lemon. Add salt if necessary.

"SOMEBODY LOVES ME"

Two or three years ago, the superintendent of the Little Wanderers' Home, in ———, received one morning, a request from the judge, that he would come up to the court house. He complied directly, and found there a group of seven little girls, dirty, ragged, and forlorn, beyond what even he was accustomed to see. The judge, pointing to them (utterly homeless and friendless,) said, "Mr. T——, can you take any of these?"

"Certainly, I can take them all," was the prompt reply.

"All! What in the world can you do with them?"

"I'll make women of them."

The judge singled out one, even worse in appearance than, the rest, and asked again, "What can you do with that one?"

"I'll make a woman of her," Mr. T—— repeated firmly and hopefully. They were washed, and provided with a good supper and beds. The next morning they went into the schoolroom with the children. Mary was the name of the little girl whose chance for better things the judge thought small. During the forenoon the teacher said to Mr. T——, in reference to her, "I never saw a child like that; I have tried for an hour to get a smile, but failed."

Mr. T—— said afterwards himself, that her face was the saddest that he had ever seen—sorrowful beyond expression; yet she was a very little girl, only five or six years old.

After school, he called her into his office, and said pleasantly, "Mary, I've lost my little pet. I used to have a little girl that would wait on me, and sit on my knee, and I loved her much. A kind gentleman and lady have adopted her, and I would like for you to take her place, and be my pet now. Will you?"

A gleam of light flitted over the poor child's face as she began to understand him. He gave her ten cents, and told her she might go to a store near by and get some candy. While she was out he took two or three newspapers, tore them in pieces and scattered them about the room. When she returned, in a few minutes, he said to her: "Mary, will you clear up my office a little for me, pick up those papers and make it look nice?"

She went to work with a will. A little more of this sort of management—in fact, treating her as a kind father would, wrought the desired result. She went into the school room after dinner, with so changed a look and bearing, that the teacher was astonished. The child's face was absolutely radiant; and half fearful of mental wandering, he went to her, and said—

"Mary, what is it? What makes you look so happy?"

"O! I've got some one to love me! somebody to love me!" the child answered earnestly, as if it were heaven come down to earth.

That was all the secret. For want of love that little one's life had been so cold and desolate, that she had lost childhood's beautiful faith and hope. She could not at first believe in the reality of kindness or joy for her. It was the certainty that some one loved her, and desired her affection, that lighted the child's soul, and glorified her face. Mary has since been adopted by wealthy people, and now lives in a beautiful home; but more than all its beauty and comfort, running like a golden thread through it all, she still finds the love of her adopted father and mother.

Shall we who have many to love, and who love us, refuse to be comforted, to see any value and use in life, any work for our hands to do, because one of our treasures may be removed from our sight—from our home and care, to a better?

And O! shall we let any of these little ones go hungering for affection—go up even to God's throne, before they find one to love them?

THE WIDOWER'S WIFE.

Within the year the widower found consolation, and this time the wife was young and pretty—that is to say, she was generally so esteemed, being white, plump, hard, and crisp as a turnip just pulled from the ground. She was selfish, indolent, pettish, with small intelligence and no reason—a white, blind force. To be married was to be married; that was all she knew, except that it involved new dresses, a white veil and some flowers. After that she entertained some vague notion that

generous living and all sorts of holiday delights flowed perpetually in of themselves, and that she, at any rate, had only to stand and wait. Her ideas of marital felicity underwent, in company with her fatalistic yoke-fellow, a singularly sudden transformation, and she went blindly bumping about her house like a bat when the sunshine is all at once let in upon it. "Leander, I want this;" and, "Leander, why don't you get me that?" "Mrs. So-and-so has it, and I want it and will have it!" These and such like were her staple of conversation. Before long came threats. "I'll go back to my father; see if I don't You might get me things like other folks! I always had sweet-cake at home! If you haven't got money, tell *them* to give you some! I'll have a blue satin dress and pearl ear-rings, or I'll go home to my father!" And her round white face would flounder among her pillows as she thus teased for half the night. And, sure enough, the threat got itself executed at last; and with a little white head, much like her own, rolling about on her shoulder, and a little bundle of blankets crushed in her arm, she one day took up line of march, leaving the cupboard bare.—*Alice Cary in Harper's Magazine for September.*

Marriage.—Marriage is to a woman at once the happiest or saddest event of her life; it is the promise of future bliss, raised on the death of all present enjoyment. She quits her home, her parents, her companions, her occupations, her amusements, everything on which she had depended for comfort, for affection, for kindness, for pleasure. The parents by whose advice she has been guided, the sister to whom she dared to impart every embryo thought and feeling, the brother who has played with her; by turns the counsellor—all, to be forsaken at one fell stroke; and yet she flies with joy into the untrodden path before her. Buoyed up by the confidence of requitted love, she bids a fond and grateful adieu to the life that is past, and departs with excited hopes and joyous anticipations of the happiness to come. Then woe to the man who can blight such fair hopes—who can treacherously lure such a heart from its peaceful enjoyment, and the watchful protection at home—who can, coward-like, break the illusions that have won her and destroy the confidence which love had inspired. Woe to such a man!

The Training of Children.—It is a fixed rule, under all circumstances, that the child must learn to obey. Obedience is the first step in education. The child must be submissive to a higher will and a more matured knowledge. By degrees he will soon find out the reason why. Take heed, however, that you do not forbid or command anything, if you can not or will not strictly enforce obedience; otherwise you introduce a laxity of principle into your action, which nothing can retrieve. Never give a command or prohibition with indifference.

Youths' Department.

TO-MORROW.

A bright little boy with a laughing face,
Whose every motion was full of grace,
Who knew no trouble, and feared no care;
The light of our household—the youngest there.

He was too young, this little elf,
With troublesome question to vex himself;
But for many days a thought would arise,
And bring a shade to the dancing eyes.

He went to one whom he thought more wise,
Than any other beneath the skies:
"Mother,"—O word that makes the home;—
"Tell me when will to-morrow come?"

"It is almost night," the mother said;
"Most time for my boy to be in bed;
When you wake up, and its day again,
It will be to-morrow, my darling, then."

The little boy slept through all the night,
But woke with the first red streaks of light;
He pressed a kiss on his mother's brow,
And whispered, "Is it to-morrow now?"

"No, little Eddie, this is to-day;
To-morrow is always one night away;"
He pondered a while, but joys came fast,
And the vexing question quickly passed.

But it came again with the shades of night;
"Will it be to-morrow when it is light?"
From years to come he seemed care to borrow,
He tried so hard to catch to-morrow.

"You cannot catch it, my little Ned;
Enjoy to-day," the mother said;
"Some wait for to-morrow through many a year,
It always is coming, but never is here."

THE MINISTRY OF THE DOVES.

On the shores of Southern Florida, and among the rocky islets, or "keys," of the Gulf of Mexico, there is a rare and beautiful bird, to which the name of the Zenaida Dove has been given by Prince Charles Bonaparte, the ornithologist. This creature is very beautiful in its delicate form, and in its coloring of a warm and rosy gray, barred with brown and white on back and wing; its breast bears a shield of pure and vivid blue, bordered with gold, its cheeks are marked with ultramarine, and its slender legs and feet are deep rose-color tipped with black nails. Innocent and gentle, like others of its tribe, this little creature flits to and fro, in small family groups, over the rocky islets, and along the warm, sandy beaches of the gulf—"Tampa's desert strand."

"On that lone shore, loud moans the sea."

There are certain keys, where it loves especially to alight, attracted by the springs which here and there gush up pure and fresh

among the coral rocks. The low note of this bird is more than usually sweet, pure, and mournful in its tone. But the doves are not the only visitors of those rare springs. A few years since, pirates haunted the same spots, seeking, like the birds, water from their natural fountains.

It chanced one day that a party of those fierce outlaws came to a desolate key to fill their water-casks, ere sailing on some fresh cruise of violence. A little flock of the rose-gray doves—and their flocks are ever few and rare—were flitting and cooing in peace about the rocky basin when the pirates appeared; in affright, they took wing, and flew away. The casks were filled, and the ruffian crew rowed their boat off to their craft lying at anchor in the distance. For some reason, apparently accidental, one of the band remained awhile on the island alone. In a quiet evening hour, he threw himself on the rocks, near the spring, looking over the broad sea, where here and there a low desert islet rose from the deep, while the vessel with which his own fate had long been connected lay idle, with furled canvas, in the offing.

Presently the little doves, seeing all quiet again, returned to their favorite spring, flitting to and fro in peace, uttering to each other their low, gentle notes, so caressing and so plaintive. It may have been that in the wild scenes of his turbulent career the wretched man had never known the force of solitude. He was now gradually overpowered by its mysterious influences, pressing upon heart and mind. He felt himself to be alone with his Maker. The works of the Holy One surrounded him—the pure heavens hanging over his guilty head, the sea stretching in silent grandeur far into the unseen distance. One object alone, bearing the mark of man, lay within range of his eye—that guilty craft, which, like an evil phantom, hovered in the offing, brooding sin.

The sounds most familiar to him for years had been curse, and ribald jest, and brutal threat, and shriek of death. But now those little doves came hovering about him, uttering their guileless notes of tenderness and innocence. Far away, in his native woods, within sight of his father's roof, he had often listened in boyhood to other doves, whose notes, like these, were pure and sweet. Home memories, long banished from his breast, returned. The image of his Christian mother stood before him.

Those little doves, still uttering their low, pure, inoffensive note, seemed bearing to him the far-off echoes of every sacred word of devout faith, of pure precept, of generous feeling, which, in happier years, had reached his ear. A fearful consciousness of guilt came over the wretched man. His heart was utterly subdued. The stern pride of manhood gave way. A powerful tide of contrition swept away all evil barriers. Bitter tears of remorse fell upon the stone on which his head rested. And that was to him the turning-point of life.

THE ZENAIDA DOVE.

He rose from the rock a penitent, firmly resolved to retrace his steps—to return to better things. By the blessing of God, the resolution was adhered to. He broke away from his evil courses, thrust temptation aside, returned to his native soil to lead a life of penitence and honest toil. Many years later, a stranger came to his cabin, in the wild forests of the Southern country, a man venerable in mien, shrewd and kindly in countenance—wandering through the woods on pleasant errands of his own. The birds of that region were the stranger's object. The inmate of the cabin had much to tell on this subject; and, gradually, as the two were thrown together in the solitude of the forest, the heart of the penitent opened to his companion.

He avowed that he loved the birds of heaven: he had cause to love them—the doves, especially; they had been as friends to him; they had spoken to his heart in the most solemn hour of life! And then came that singular confession. The traveller was Audubon, the great ornithologist, who has left on record in his works this striking incident. In olden times, what a beautiful ballad would have been written on such a theme—fresh and wild as the breeze of the forest, sweet and plaintive as the note of the dove!—*Appleton's Juvenile Annual.*